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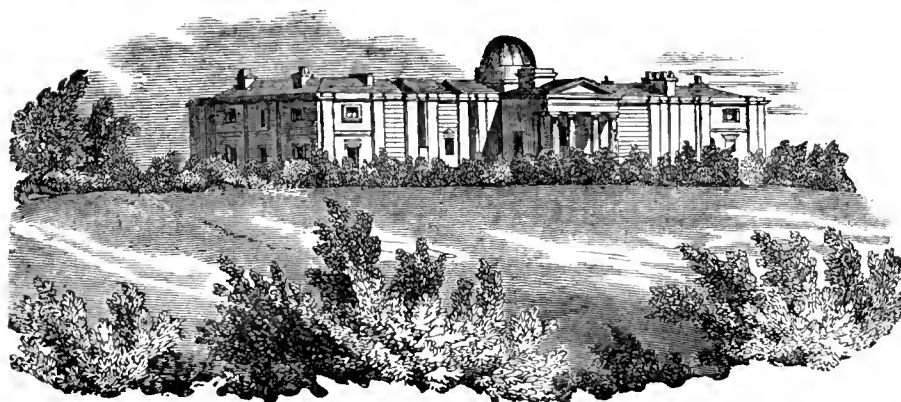
MADE AT THE
OBSERVATORY OF CAMBRIDGE

BY

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IN THE UNIVERSITY OF CAMBRIDGE,
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P R E F A C E.

ALL the Observations contained in this Volume were taken by myself and two assistants. Mr Baldrey observed with the Transit from the commencement of the year to the middle of October, when, in consequence of infirm state of health, he was obliged to desist from observing. The Circle Observations were principally taken by Mr Glaisher. The Transits from Oct. 18 to the end of the year, and the Equatoreal Observations, were taken either by myself or Mr Glaisher. We were able to maintain an uninterrupted series of Meridian Observations throughout the year with the addition of observations of double stars with the Northumberland Telescope and various other Equatoreal Observations. The year having proved unusually favorable for observing, it happens that the observations have exceeded in number the average of former years, and have occupied a proportionally longer time in preparation for the press.

The objects embraced by the Meridian Observations are the Sun, the Moon, and the Planets Jupiter, Saturn, and Uranus, with a large number of stars, principally double stars, the observations of whose angular positions and distances, taken nearly contemporaneously with the Northumberland Telescope, are reserved for publication in a separate Volume.

The Equatoreal Observations are principally differential observations of the Right Ascension and North Polar Distance of Encke's Comet; similar observations of Laugier's Comet; measures of apparent diameters of planets; and occultations of fixed stars by the Moon.

All the observations have been completely reduced with the strictest attention to accuracy, and the calculations have all been scrupulously examined.

J. CHALLIS.

CAMBRIDGE OBSERVATORY,
Oct. 17, 1845.

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ERRATA.

IN THE VOLUME FOR 1838.

p. xli. In the note, *for* p. xxxi *read* xxvi.

IN THE VOLUME FOR 1840 AND 1841.

- p. 92. Annual Variation of Piazzi XVII. 64, *for* +3,061 *read* +2,345.
p. 234, last line but two. *For* 64,15 *read* 36,15.
p. [10], April 23. *For* ✕ N.P.D. 82°.6' *read* ✕ N.P.D. 82°.0'.
p. [12], May 1. *For* ✕ N.P.D. 82°.6' *f*, *read* ✕ N.P.D. 82°.0'. The letter *f* indicates that it follows Σ 1507.
pp. [26] and [28], Sept. 17, 18 and 23. *For* ✕ N.P.D. 62°.56' *read* Σ 2525.
p. [51], bottom of first column. *For* ✕ N.P.D. 82°.6' *read* ✕ N.P.D. 82°.0'.
p. [53], last column. *For* ✕ N.P.D. 62°.56' *read* Σ 2525.
p. [57]. The star 35 Piscium is the same as B Piscium in the Catalogue of 1840, and according to the adopted rule of nomenclature should be so called. The same correction required in pp. [42] and [49].
p. [57]. Name of star whose R.A. is 10^h.57^m.51^s.91 should be Σ 1507 *p*; and in the next line, *for* Σ 1507 *p* *read* ✕ (Mag. 7, 8.)
p. [57]. The star Piazzi XI. 126 is A.S.C. 1364, and should be so called here and in pp. [12] and [51].
p. [58], first column, line 17 from the bottom. *For* ✕ (Mag. 8) *read* Σ 2525, and in the column of N.P.D., *for* 62.56 *read* 63.0.
p. [71]. Correction to Jan. 1. of Σ 1751 May 23, *for* -19,70 *read* -14,42, and Correction to Jan. 1. of Σ 1760 May 23, *for* -23,53 *read* -10,05.
p. [110], first column, Σ 1751, *for* 79.51.28,84 *read* 79.51.34,12; and in second column, Σ 1760, *for* 62.54.9,59 *read* 62.54.23,07.
p. [118], seconds of mean N.P.D. of Σ 1751, *for* 28,86 *read* 34,14; and seconds of mean N.P.D. of Σ 1760, *for* 10,23 *read* 23,71.
p. [118], R.A. of Σ 1943. *For* 15.18.54 *read* 15.19.45.

IN THE VOLUME FOR 1842.

- p. xi, line 28. *For* C or B and G *read* C or G and B.
p. 88, correction for wires omitted for \gg 1 L. Dec. 17, *for* -14,98 *read* -15,22. The seconds of concluded transit accordingly are 9,88; the seconds of transit corrected, 9,82; and the seconds of apparent R.A. 17,05.
p. 273. Approximate N.P.D. of Comet March 6, *for* 77.57.47 *read* 77.57.10.
p. 283. Under the heading 'apparent difference of N.P.D.' *for* *m. s. read* ' ''.

CAMBRIDGE OBSERVATIONS.

INTRODUCTION.

THE *Instruments* and *methods of observing* employed in the Observations recorded in this Volume, are described in the Introductions to the Observations of 1838 and previous years. The following pages contain explanations of the tabulated Observations and such occasional notices as could not be given at length in the body of the work, together with an account of the constants and formulæ used in the Calculations.

I. *Transits as observed, and Calculation of Apparent Right Ascensions.* Pages 1—93.

The first division of the tabular portion of the work is allotted to the Transit Observations and the Calculation of Apparent Right Ascensions.

The *first column* of the *left-hand* pages contains the day of the month, supposed always to commence with the Sun's meridian passage.

The *second column* contains the names of the objects observed. With respect to nomenclature the following rule has been adopted. Stars contained in the Nautical Almanac have the same names here given them as in that work. Stars in the Astronomical Society's Catalogue and not in the Nautical Almanac, are named, in preference, by the letters in that Catalogue attached to the name of the constellation; next, by Flamsteed's numbers attached; and in default of these, by merely the numbers of the Catalogue. If the star is not in the Astronomical Society's Catalogue, Flamsteed's number first, and next the hour and number of Piazzi's Catalogue, are used. Double stars in Struve's *Catalogus Novus*, if not found in any of the above-mentioned works, are designated by the letter Σ prefixed to the number of that Catalogue. All other stars are named by their approximate North Polar Distances.

In observations of double and multiple stars, the rule generally followed both in the Transit and Circle observations is, to select the brightest when decidedly brighter than the others, and of two or more nearly equally bright, to take the preceding. In many instances the observer notes the one selected as *preceding, following, north, south, north preceding, north following, south preceding, south following*, by the letters *p, f, n, s, np, nf, sp, sf*, in their usual signification, the preceding star being that of less R.A., and the north star that of less N.P.D. This is done when the application of the foregoing rule is doubtful, or when the stars are very close, to shew that they are seen separate, or to facilitate the identifying of the stars. The above letters are attached to the names of the stars in the second column, only in case the observer has noted at the time of observation the star selected.

The *seven succeeding columns* contain the times, by the Transit clock, of passage over the seven wires. The hour and minute in the seventh of these columns always refer to the wire last observed.

When, as not unfrequently happens from atmospheric and accidental causes, the times of transit across all the wires cannot be observed, a correction is necessary for reducing the mean of the observed times to the time of transit over the mean of all the wires.

This reduction is effected by adding (with the proper sign) to the mean of the observed times, the sum, divided by the number of wires observed, of the distances in time of the omitted wires from the mean of all. (See Introduction to the Observations of 1836, p. xiii.)

A new system of wires was inserted at the beginning of 1842. The wire-frame was webbed by Mr Simms: the wires are somewhat finer than the last. The following table, which is used throughout the year, was computed in the manner explained in p. xiv. of the Introduction to the Volume for 1837, from the observations of Polaris made in 1842 from Feb. 1 to May 25, and those of δ Ursæ Minoris from Jan. 17 to March 10. The wires are distinguished by the letters *A, B, C, D, E, F, G*; and stars above the Pole pass them in this order when the illuminated end of the axis is East.

Intervals of the wires from the mean of all.

Wire.	Interval for an Equatoreal Star.	Interval for δ Ursæ Minoris Declination = $86^{\circ}.35' + n''$.	Interval for 51 (Hevelii) Cephei Declination = $87^{\circ}.15' + n''$.	Interval for Polaris Declination = $88^{\circ}.28' + n''$.
A	- 40,375	- 11 . 17,75 - $n \times 0,055$	- 14 . 2,01 - $n \times 0,085$	- 25 . 11,91 - $n \times 0,275$
B	- 26,910	- 7 . 31,61 - $n \times 0,037$	- 9 . 20,87 - $n \times 0,057$	- 16 . 46,55 - $n \times 0,183$
C	- 13,538	- 3 . 47,17 - $n \times 0,018$	- 4 . 42,24 - $n \times 0,029$	- 8 . 26,03 - $n \times 0,092$
D	- 0,038	- 0,64	- 0,69	- 1,42
E	+ 13,607	+ 3 . 48,33 + $n \times 0,019$	+ 4 . 43,56 + $n \times 0,029$	+ 8 . 28,63 + $n \times 0,092$
F	+ 26,873	+ 7 . 31,00 + $n \times 0,037$	+ 9 . 20,21 + $n \times 0,057$	+ 16 . 45,19 + $n \times 0,183$
G	+ 40,381	+ 11 . 17,84 + $n \times 0,055$	+ 14 . 2,05 + $n \times 0,085$	+ 25 . 12,12 + $n \times 0,275$

The intervals for a star whose North Polar Distance is not very small, are obtained by multiplying the intervals for an equatoreal star by the cosecant of N.P.D. For the Sun and Planets an additional factor is used, which is deduced from the horary variation of their R.A. given in the Nautical Almanac. The multiplier for the Moon takes account of the variation of R.A. as affected by parallax, and is calculated from the expression

$$\frac{3600 + I}{3600} \times \frac{\sin. \text{Moon's geocentric Z.D.}}{\sin. \text{Moon's apparent Z.D.}} \times \text{cosecant of N.P.D.},$$

where *I* is the increase of the Moon's R.A. in passing over 1^h of the terrestrial longitude, given under the head of Moon-culminating Stars in the Nautical Almanac.

The first limb of Jupiter and the first limb of Saturn's Ring are usually observed at the wires *A, C, E*, and *G*; and the second limbs at the wires *B, D*, and *F*. The observation of each limb is corrected to the mean of all the wires by the foregoing table.

The corrections to the mean of all for wires omitted occupy the *tenth column*.

The concluded times of transit over the mean of the seven wires, as given by the clock, are placed in the *eleventh column*.

The *twelfth column* contains the initial of the observer's name. The observations marked *C* are by myself, those marked *B* by Mr Baldrey, and those marked *G* by Mr Glaisher.

The space immediately below the columns contains notices of the position of the instrument and the order of the wires. Incidental and explanatory remarks are introduced at the bottom of the page. To give an opportunity of judging of the weight due to individual observations, it was thought right to omit the mention of no circumstance which seemed likely in any way to affect an observation, especially if the object were the Sun, the Moon, or a Planet.

The columns of the *right-hand* pages contain the elements of the calculation by which the Apparent Right Ascensions are inferred from the concluded times of Transit; which is done by applying corrections for *Error of Collimation*, *Level Error*, *Meridian Error*, and *Clock Error*. The methods of obtaining these corrections will here be severally stated in the order of their application.

Error of Collimation.—A wooden cross in the form of X, placed so that the vertical micrometer-wire can be brought to bisect its acute angles, serves as a southern mark for determining the error of collimation. It is fixed on the tower of Grantechester church, at the distance of about $2\frac{1}{2}$ miles, and its angular distance West of the meridian is about $14''$. To avoid any error that may arise from a change of position of the axis of the instrument by the reversion, a northern mark is also used. Instead of a fixed northern mark, for which there is no convenient object, a small transit instrument is put up as a horizontal collimator in the northern opening for the shutters, and the micrometer-wire is applied to a selected point of the image of one of its wires. This is found in practice to answer well enough the required purpose.

The following were the observations made in 1842 for the determination of the collimation error.

Feb. 23, $4\frac{1}{2}^h$. I reversed the Transit. The cross was steady and clear before the reversion, and more distinct but less steady after the reversion. The collimator's wire was seen sufficiently well.

Illuminated End of Axis West.

Mean of 6 readings, micrometer-wire coincident with <i>D</i>	$r.$ 24,157
..... 8 bisecting South mark	25,268
..... 9 bisecting North mark	15,237

Illuminated End of Axis East.

Mean of 8 readings, micrometer-wire bisecting North mark	$r.$ 33,056
..... 8 bisecting South mark	22,995
..... 6 coincident with <i>D</i>	24,156
Reading for line of collimation by South mark.....	24,132
..... North mark.....	24,147
Reading for true line of collimation	24,139
Reading for <i>D</i>	24,156

As the micrometer readings increase in going from the illuminated end of the axis, stars entering from the West come to *D* before coming to the true line of collimation. Hence the error of collimation of *D* in micrometer revolutions is $+0^s.017$, and in arc $+0''.29$, one micrometer revolution being $17''.06$. By the Table in p. ii, the mean of all the wires is more eastward than *D* by $0^s.038$, or $0''.57$. Hence for illumination East, the error of collimation of the mean of the wires, inclusive of the correction $-0''.18$ for diurnal aberration is, $+0''.29 - 0''.57 - 0''.18$, or $-0''.46$. Error of collimation before reversion = $-0''.29 + 0''.57 - 0''.18$, or $+0''.10$.

In taking the above measures I remarked that the micrometer reading was different according as the micrometer-wire was moved, to make the bisection, *towards* or *from* the micrometer-head; on which account the bisections in future are made by moving the micrometer-wire partly in one direction, partly in the other, as in taking the coincidences with *D*.

May 27, 6^h . The Transit was reversed. The cross was steady and well seen. The collimator's wire being obscure, two points of it were bisected in succession, but neither satisfactorily. The temperature was at 60° .

Illuminated End of Axis East.

Mean of 6 readings, micrometer-wire coincident with <i>D</i> ...	^{r.} 24,144
..... 8 bisecting South mark	23,036
..... 6 bisecting North mark (1st point)	25,846
..... 3 bisecting North mark (2nd point)	24,807

Illuminated End of Axis West.

Mean of 6 readings, micrometer-wire bisecting North mark (1st point)	^{r.} 22,318
..... 4 bisecting North mark (2nd point)	23,370
..... 8 bisecting South mark	25,138
..... 6 coincident with <i>D</i>	24,143
Reading for line of collimation by South mark.....	24,087
..... North mark {1st point	24,082
..... {2nd point.....	24,088
Reading for true line of collimation	24,086
Reading for <i>D</i>	24,144

Since the reading for *D* is greater than that for the true line of collimation, the error of its collimation (Illumination West) is $-0^{\circ}.058$, or $-0''.99$. Hence the error of collimation of the mean of the wires, inclusive of the correction for diurnal aberration, is $-0''.60$.

Sept. 24, 3^h. I reversed the Transit under circumstances upon the whole favorable. The cross was steady and pretty distinct, the collimator was a little shaken by the wind.

Illuminated End of Axis West.

Mean of 8 readings, micrometer-wire coincident with <i>D</i>	^{r.} 24,138
..... 7 bisecting South mark	25,196
..... 8 bisecting North mark	21,096

Illuminated End of Axis East.

Mean of 8 readings, micrometer-wire bisecting North mark	^{r.} 27,202
..... 7 bisecting South mark	23,042
..... 8 coincident with <i>D</i>	24,136
Reading for line of collimation by South mark	24,119
..... North mark	24,149
Reading for true line of collimation	24,134
Reading for <i>D</i>	24,137

Hence the error of collimation of *D* (Illumination East) = $+0^{\circ}.003$, or $+0''.05$; and the error of collimation of the mean of the wires with the correction for diurnal aberration = $-0''.70$.

Dec. 21, 3^h. The Transit was reversed. The cross was unsteady and rather obscure before reversion, and became still more unsteady after the reversion, the Sun having shone out in the interval. The collimator's wire was seen as well as usual.

Illuminated End of Axis East.

Mean of 6 readings, micrometer-wire coincident with <i>D</i>	^{r.} 24,123
..... 7 bisecting South mark	22,899
..... 8 bisecting North mark	22,951

Illuminated End of Axis West.

Mean of 8 readings, micrometer-wire bisecting North mark	^{r.} 25,225
..... 9 bisecting South mark	25,200
..... 8 coincident with <i>D</i>	24,120
Reading for line of collimation by South mark	24,050
..... North mark	24,088
Reading for true line of collimation	24,069
Reading for <i>D</i>	24,121

Hence the error of collimation of *D* (Illumination West) is $-0''.052$, or $-0''.89$; and the error of collimation of the mean of the wires with the correction $-0''.18$ for diurnal aberration $= -0''.50$.

The values of collimation error used in the reduction of the Transits are placed in the *first column* of the right-hand page, with bars across to indicate the limits within which each value is used. The time of reversion is stated in the space below the columns.

The correction to the observed time of each Transit is in seconds of time,

$$\frac{1}{15} \times \text{collimation error} \times \text{cosecant of N.P.D.},$$

the N.P.D. being considered negative when the star passes below the pole.

Level Error.—The angular deviation of the axis of revolution of the Transit from a horizontal plane is found by applying to the pivots a spirit-level, furnished with a cross-level adjustment, and with graduated scales for reading off the positions of the extremities of the bubble. It is the practice to reverse the level five times, and thus obtain six eastern and six western readings, the scales being first disposed in positions convenient for reading off, which they retain during the whole of the operation. In the graduation of each scale the numbers increase in the direction from the middle of the bubble towards the extremity. Hence the algebraic *excess* of the sum of the western above the sum of the eastern readings, divided by the whole number of readings, is the measure, in degrees of the scales, of the *elevation* of the west end of the axis above a horizontal plane. This is converted into angular measure by multiplying by $1''.3$, the value of 1° of the scales. In consequence of the discussion of the relative size and form of the pivots given in pages vi. and vii. of the Introduction to the Observations of 1839, the correction $-0''.12$ or $+0''.12$ is added according as the illuminated end of the axis is West or East. For Polaris and δ Ursæ Minoris the corrections are $-0''.22$ and $+0''.22$. Since stars above the pole require a positive correction to their time of transit when the west end of the axis is the more elevated, the result thus obtained is the Level Error with its proper sign. This is placed in the *second column*, with bars across to indicate the interval during which each value is used.

The numerical correction applied to the observed time of each transit, previously corrected for error of collimation, is, in seconds of time,

$$\frac{1}{15} \times \text{level error} \times \text{cosine of Zen. Dist.} \times \text{cosecant of N.P.D.},$$

the N.P.D. being negative when the star is below the pole.

The levelling is commonly performed once in a week, and the determination is used from the third or fourth day previous. The time of levelling, and the number of levellings (if more than one) from which the level error is obtained, are stated in the space below the columns of the right-hand pages.

The following Table contains a list of all the Level Errors obtained in 1842, with the times of levelling, position of the instrument, and Temperature in degrees of Fahrenheit, as shewn by a Thermometer in the Transit Room. In all the observations the Telescope was horizontal, and, with the exception of the second and fourth levellings on Sept. 24, the object-glass was southward.

Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.	Time of Levelling.	Level Error.	Position of Illum. End of Axis.	Temperature.
Jan. 17 . 2	- 3,01	West	37	May 20 . 2	- 4,33	East	54	Sept. 7 . 3	- 5,18	West	65
27 . 2	- 2,81	—	40	26 . 2	- 4,42	—	58	13 . 4	- 5,28	—	61
Feb. 14 . 4	- 3,46	—	47	27 . 6	- 4,12	—	60	24 . 2	- 5,29	—	55
22 . 2	- 3,76	—	43	27 . 7	- 5,02	West	60	24 . 2	- 5,32	—	55
23 . 4	- 3,34	—	46	June 2 . 2	- 5,09	—	64	24 . 3	- 4,14	East	55
23 . 5	- 2,34	East	45	8 . 3	- 5,03	—	72	24 . 3	- 4,03	—	55
28 . 2	- 2,65	—	45	14 . 4	- 4,83	—	71	30 . 2	- 3,68	—	54
Mar. 7 . 2	- 2,96	—	48	22 . 4	- 5,48	—	64	Oct. 5 . 2	- 3,91	—	52
17 . 3	- 2,91	—	51	July 1 . 23	- 5,91	—	59	11 . 4	- 3,62	—	57
24 . 2	- 3,23	—	40	8 . 5	- 5,81	—	61	21 . 3	- 3,73	—	44
30 . 2	- 3,25	—	54	13 . 6	- 5,23	—	66	30 . 22	- 2,91	—	47
Apr. 6 . 3	- 3,27	—	49	23 . 3	- 5,74	—	60	Nov. 8 . 2	- 2,70	—	44
14 . 2	- 3,48	—	44	28 . 4	- 5,24	—	65	20 . 22	- 1,97	—	41
20 . 2	- 3,36	—	53	Aug. 6 . 3	- 5,16	—	65	Dec. 5 . 23	- 2,18	—	43
28 . 2	- 3,72	—	56	16 . 6	- 5,16	—	73	14 . 22	- 2,22	—	50
May 4 . 2	- 3,74	—	56	23 . 6	- 5,32	—	74	21 . 2	- 2,52	—	49
11 . 2	- 3,96	—	58	31 . 2	- 5,65	—	61	21 . 3	- 3,75	West	50

It may be remarked that the variation of Level error follows pretty closely the annual variation of Temperature. Also that a change of Level error occurs at each reversion of the instrument, indicating a difference in the radii of the pivots. By calculating in the manner shewn in p. xxviii of the Introduction to the Volume for 1837, the quantity (ε) which measures the excess of the radius of the pivot at the illuminated end above the radius of the other, is found by the reversions on Feb. 23, May 27, Sept. 24, and Dec. 21, to be respectively $-0'',18$, $-0'',15$, $-0'',21$, and $-0'',23$.

1842. Sept. 21, from 2^h to 5^h , I observed as follows to determine the deviation of the Transit pivots from the cylindrical form. The Telescope was directed to different zenith distances separated by intervals of 5° , while the Level remained on the pivots. After turning it from the horizontal position to the least Zenith distance the situation of the Level would admit of, it was brought back by the same degrees to the horizontal position, and for each zenith distance the Level was read off, after previously adjusting the Cross Level. The illuminated end of the axis was West. At the beginning of the observations the Temperature was $56^\circ,8$, and at the end, $56^\circ,4$. The air was still.

Object-glass South.—Cross Level East.						Object-glass North.—Cross Level East.					
Zenith Distance South.	East Reading (1st time).	East Reading (2d time).	West Reading (1st time).	West Reading (2d time).	Mean Excess of E. Readings.	Zenith Distance North.	East Reading (1st time).	East Reading (2d time).	West Reading (1st time).	West Reading (2d time).	Mean Excess of E. Readings.
90	10,8	9,8	9,2	8,2	+ 1,2	90	10,1	9,7	7,8	7,9	+ 2,0
85	11,0	9,8	9,0	8,1	+ 1,8	85	10,1	10,0	7,7	7,6	+ 2,4
80	10,8	10,1	9,1	8,1	+ 1,9	80	10,1	9,6	7,6	7,9	+ 2,1
75	10,6	9,7	9,1	8,3	+ 1,5	75	9,6	9,6	7,9	7,9	+ 1,7
70	10,4	10,0	9,2	8,2	+ 1,5	70	10,1	9,6	7,5	7,9	+ 2,2
65	10,1	9,7	9,2	8,3	+ 1,1	65	9,8	10,1	7,8	7,5	+ 2,3
60	10,6	10,1	8,5	8,1	+ 2,1	60	10,0	9,7	7,6	7,9	+ 2,1
55	10,8	10,1	8,1	8,1	+ 2,4	55	10,1	10,1	7,4	7,5	+ 2,6
50	10,7	10,6	7,9	7,7	+ 2,9	50	10,1	10,5	7,4	7,1	+ 3,0
45	10,9	10,9	8,0	7,5	+ 3,1	45	10,1	10,6	7,4	6,9	+ 3,2
40	10,7	10,8	7,9	7,7	+ 3,0	40	10,5	10,3	7,0	7,2	+ 3,3
38	10,5	10,4	7,9	8,0	+ 2,5	38	10,1	10,0	7,5	7,5	+ 2,6

It appears from this Table that the mean excess of the East Readings varies with the Zenith Distance, being a maximum at about 45° of Zenith Distance whether the Telescope is directed Northward or Southward. The change is, however, very small; and as the corrections obtained in the Introduction to the Observations of 1839 (pages vi and vii) take into account a variation of the same kind and nearly the same amount, it was considered unnecessary to calculate new corrections from the above data.

Meridian Error.—The angle by which the plane of motion of the true line of collimation, (supposing the level error corrected), deviates from the plane of the meridian, has been generally found by two or more transits of Polaris, or δ Ursæ Minoris, alternately above and below the pole, and as often as possible, consecutive. When this method could not be employed, the meridian error has been deduced from a comparison of a single transit of one of these stars with the transit of a known star above and distant from the pole, and in a few cases, by the comparison of transits of δ Ursæ Minoris and 51 (Hevelii) Cephei.

The formulæ of calculation applicable to the above methods are obtained as follows. Let A , A' be the apparent right ascensions of two known stars, t , t' their times of transit as shewn by the clock, corrected for collimation and level errors, τ the clock's loss in the interval between the transits, h , h' the coefficients of meridian error, positive except between the zenith and the pole, and calculated by the formula, coefficient $= \frac{1}{15} \times \sin. \text{Zen. Dist.} \times \text{cosec. N.P.D.}$, and z the meridian error in seconds of space, considered positive when the plane of motion of the line of collimation deviates on the South side of the Zenith towards the East. Then $A' - A = t' + h'z - (t + hz) + \tau$; and hence

$$z = \frac{A' - A - (t' - t) - \tau}{h' - h},$$

which is the general formula for meridian error. That it may be safely used, the denominator $h' - h$ must be large, and it is consequently necessary that one at least of the stars should be near the pole.

When two known stars, one or both near the pole, are employed, $A' - A$ is the difference of their assumed apparent R.A., and τ is inferred from the differences of the uncorrected times of transit of any southern stars observed on two days near the time of the observations for meridian error. In the instances in which δ Ursæ Minoris and 51 (Hev.) Cephei are the two known stars, one is observed above and the other nearly at the same time below the pole, their R.A. differing by about 12^h , so that h' and h are both large with opposite signs, and τ is too small to be taken account of.

If two observations of the same circumpolar star be used, one above and the other below the pole, and if ϵ be the increase of its R.A. in the interval between the observations, $A' - A = 12^h + \epsilon$, and

$$z = \frac{12^h + \epsilon - (t' - t) - \tau}{h' - h},$$

which is independent of any assumed R.A. of the star.

When three equidistant transits of a circumpolar star, alternately above and below the pole, have been obtained, there will be another equation like the preceding, in which ϵ and τ have nearly the same values; and if t'' be the time of the third transit, corrected for errors of collimation and level, the two equations give

$$z = \frac{(t'' - t') - (t' - t)}{2(h' - h)},$$

which equation is independent both of the R.A. of the stars, and of their change of R.A. and the clock's rate.

The numerical computation from the preceding formulæ is performed as follows, the meridian error being always a small quantity. When two stars are used, the seconds of transit of the first (corrected for collimation and level errors) are increased by the seconds of the sidereal interval between the transits, which is derived from the assumed R.A. of the stars, and the seconds of transit of the second, by the loss of the clock in that interval. The difference of the two sums (care being taken to add or reject $60''$ that the difference may not exceed a small number of seconds) being divided by $h' - h$ without regarding its sign, gives the value of the meridian error. The process is the same in the case of two transits of the same circumpolar star, the excess of the star's R.A. at the second transit above its R.A. at the first, being added algebraically to the seconds of the first transit.

When there are three transits, the corrections for difference of R.A. and clock's rate are omitted, and the sum of the two differences of seconds of transit, obtained from the first and second and the second and third, is divided by double the value of $h' - h$.

When more than three consecutive transits have been observed, a value of the meridian error is deduced from the first, second, and third; another from the second, third, and fourth; and so on. If the different values are nearly equal, the mean of all is used: when they differ considerably, they are used separately or in groups.

The sign of the meridian error is positive when to obtain the quantity which $h' - h$ divides, the seconds for a star below and near the pole are subtracted from the seconds for a star above the pole, or the seconds for a star above and distant from the pole are subtracted from those for a star above and near the pole. In the contrary cases it is negative.

The value of $h' - h$ (without regard to sign) for the year 1842 is 3,061 for Polaris, and 1,372 for δ Ursæ Minoris.

The following Table contains a list of the Meridian Errors used in this Volume, with an account of the methods by which they were obtained.

Meridian Errors of 1842.

Mean Time of Observation.	Star.	Seconds of Transit corrected for Collimation and Level Errors.	Corrections for Difference of R.A. and rate of Clock.	Meridian Error.	Mean Time of Observation.	Star.	Seconds of Transit corrected for Collimation and Level Errors.	Corrections for Difference of R.A. and rate of Clock.	Meridian Error.
Jan. 17. 11 17. 23	δ Ursæ Min. SP. δ Ursæ Minoris	12,84 20,88	+ 0,06 + 0,35	+ 6,07	Mar. 30. 1 30. 13	Polaris Polaris SP.	16,91 7,28	+ 0,04 + 0,60	+ 2,96
23. 9 23. 22	β Tauri δ Ursæ Minoris	45,42 18,00	+ 27,97 + 0,38	+ 7,51 (a)	Apr. 6. 0 6. 12 7. 0 7. 12 8. 0 8. 12 9. 0 9. 12	Polaris Polaris SP. Polaris Polaris SP. Polaris Polaris SP. Polaris Polaris SP.	12,70 60,88 11,33 59,67 10,27 60,42 10,71 54,84		+ 3,64 (e) + 3,61 + 3,64 + 3,34 + 3,29 + 4,27
26. 22 27. 10 27. 22	δ Ursæ Minoris δ Ursæ Min. SP. δ Ursæ Minoris	15,86 6,95 14,92		+ 6,15	15. 11 15. 23	Polaris SP. Polaris	52,21 67,10	+ 0,12 + 0,40	+ 4,96
31. 22 Feb. 1. 3	δ Ursæ Minoris α Andromedæ	12,12 31,67	+ 23,82 + 0,20	+ 6,13 (a)	18. 11 18. 23 19. 11 19. 23 20. 11 20. 23	Polaris SP. Polaris Polaris SP. Polaris Polaris SP. Polaris	53,37 63,35 51,22 63,54 53,09 60,81		+ 3,61 (f) + 3,99 + 3,72 + 2,97
1. 3 1. 4	α Andromedæ Polaris	31,67 45,85	+ 5,02 + 0,04	+ 6,10 (a)	27. 23 28. 11 28. 22 29. 11 29. 22 30. 10	Polaris Polaris SP. Polaris Polaris SP. Polaris Polaris SP.	55,42 46,55 56,01 47,18 54,31 46,15		+ 2,99 + 2,99 + 2,61 (g) + 2,50 (g)
5. 4 5. 5	Polaris α Arietis	39,12 31,15	+ 1,12 + 0,04	+ 5,98 (a)	May 4. 21 4. 22	α Andromedæ Polaris	0,75 52,13	+ 48,02 + 0,03	+ 2,25 (a)
13. 21 13. 22	δ Ursæ Minoris α Aquilæ	1,21 9,09	+ 11,49 + 0,07	+ 5,21 (b)	10. 22 13. 10	Polaris Polaris SP.	49,68 41,31	+ 1,56 + 2,43	+ 2,45
14. 2 14. 3	α Andromedæ Polaris	18,33 22,21	+ 56,23 + 0,05	+ 5,10 (b)	24. 9 24. 21 25. 9	Polaris SP. Polaris Polaris SP.	40,29 46,87 39,29		+ 2,31
17. 8 18. 20	δ Ursæ Min. SP. δ Ursæ Minoris	51,67 55,05	+ 0,38 + 1,55	+ 3,32 (c)	31. 20 June 1. 8	Polaris Polaris SP.	43,01 36,43	+ 0,35 + 0,65	+ 2,05
18. 8 18. 20	δ Ursæ Min. SP. δ Ursæ Minoris	51,48 55,05	+ 0,12 + 0,52	+ 2,89 (c)	2. 8 2. 20 3. 8 3. 20	Polaris SP. Polaris Polaris SP. Polaris	40,98 42,51 34,75 44,45		+ 1,52 (h) + 2,85 (h)
Mar. 3. 8 4. 20	δ Ursæ Min. SP. δ Ursæ Minoris	42,68 45,92	+ 0,44 + 1,60	+ 3,21 (d)					
4. 20 5. 8	δ Ursæ Minoris δ Ursæ Min. SP.	45,92 41,11	+ 0,16 + 0,53	+ 3,24 (d)					
5. 8 6. 20	δ Ursæ Min. SP. δ Ursæ Minoris	41,11 44,02	+ 0,44 + 1,59	+ 2,96 (a)					
8. 19 10. 7	δ Ursæ Minoris δ Ursæ Min. SP.	41,94 36,91	+ 0,53 + 1,32	+ 3,09					
18. 13 23. 1	Polaris SP. Polaris	20,89 25,61	- 0,95 + 4,05	+ 3,18					

(a) Not used. (b) The mean of these is used from Feb. 10. (c) The mean of these is used from Feb. 16. (d) The mean used from Feb. 24. (e) The mean of the three first of this set is used from April 4, the mean of the two next from Castor April 8, and the last from Castor April 9. (f) The mean of the first two is used from April 18, and the mean of the other two from Procyon April 20. (g) The mean of these is used from April 29. (h) The mean of these is used from June 2.

Mean Time of Observation.	Star.	Seconds of Transit corrected for Collimation and Level Errors.	Corrections for Difference of R.A. and rate of Clock.	Meridian Error.	Mean Time of Observation.	Star.	Seconds of Transit corrected for Collimation and Level Errors.	Corrections for Difference of R.A. and rate of Clock.	Meridian Error.
June 13. 8 ^h 13. 20 14. 8	Polaris SP. Polaris Polaris SP.	35,10 44,56 35,89	.. .. ..	.. + 2,96 ..	Sept. 26. 11 ^h 26. 13	α Pegasi Polaris	30,03 15,10	+ 41,19 + 0,06 ..	.. + 2,59 ..
27. 7 27. 8	Polaris SP. ϵ Bootis	36,35 6,94	+ 27,75 + 0,07	+ 1,88 (a)	29. 13 30. 0	Polaris Polaris SP.	13,26 4,34	+ 0,05 + 0,50	+ 2,77
27. 10 27. 12	Antares δ Ursæ Minoris	46,39 24,51	+ 35,64 + 0,09	+ 3,64 (a)	Oct. 4. 12 5. 0	Polaris Polaris SP.	11,33 1,81	+ 0,10 + 0,43	+ 3,00
July 12. 6 12. 7	Polaris SP. ϵ Bootis	34,99 51,54	+ 15,16 + 0,07	+ 0,94 (b)	6. 0 6. 12 7. 0	Polaris SP. Polaris Polaris SP.	4,48 6,83 3,22	.. .. ..	+ 0,97
12. 10 12. 11	α Ophiuchi δ Ursæ Minoris	23,34 6,37	+ 42,18 + 0,04	+ 1,31 (b)	10. 11 11. 0	Polaris Polaris SP.	66,63 58,80	+ 0,02 + 0,42	+ 2,43
14. 11 14. 23 15. 11	δ Ursæ Minoris δ Ursæ Min. SP. δ Ursæ Minoris	64,86 59,95 63,60	.. .. ..	+ 3,12	20. 23 21. 11	Polaris SP. Polaris	51,19 62,22	+ 0,04 + 0,27	+ 3,68
25. 12 25. 22	α^2 Capricorni δ Ursæ Min. SP.	51,34 47,51	+ 57,78 + 0,47	+ 1,68 (b)	25. 23 26. 10 26. 23	Polaris SP. Polaris Polaris SP.	46,03 59,90 47,68	.. .. ..	+ 4,26
29. 10 29. 22 30. 10	δ Ursæ Minoris δ Ursæ Min. SP. δ Ursæ Minoris	46,43 41,01 45,66	.. .. ..	+ 3,67	31. 22 31. 23	Polaris SP. Arcturus	44,11 37,83	+ 49,43 + 0,02	+ 2,79
Aug. 8. 9 8. 9	δ Ursæ Minoris 51 (Hev.) Cep. sp.	32,57 48,32	+ 19,53	+ 2,46 (c)	Nov. 13. 21 14. 0	Polaris SP. α Coronæ Bor.	35,59 5,19	+ 25,22 + 0,04	+ 2,85
9. 9 9. 9	δ Ursæ Minoris 51 (Hev.) Cep. sp.	31,47 47,03	+ 20,12	+ 2,96 (c)	30. 7 30. 8	α Andromedæ Polaris	18,26 38,68	+ 10,94 + 0,01	+ 6,29
9. 9 10. 21	δ Ursæ Minoris δ Ursæ Min. SP.	31,47 26,47	- 0,41 + 1,62	+ 2,16 (c)	Dec. 3. 7 3. 8	α Andromedæ Polaris	16,65 35,48	+ 9,56 + 0,01	+ 6,15
14. 21 15. 9	δ Ursæ Min. SP. δ Ursæ Minoris	20,87 23,50	- 0,18 + 0,63	+ 2,51 (d)	8. 7 8. 8	α Andromedæ Polaris	15,06 29,62	+ 6,38 + 0,01	+ 5,43
15. 9 16. 21	δ Ursæ Minoris δ Ursæ Min. SP.	23,50 18,34	- 0,55 + 1,68	+ 2,14 (d)	14. 7 14. 19	Polaris Polaris SP.	22,31 10,54	- 0,28 + 0,29	+ 3,66
20. 9 20. 9	δ Ursæ Minoris 51 (Hev.) Cep. sp.	17,46 39,92	+ 28,64	+ 4,02 (b)	19. 7 19. 19	Polaris Polaris SP.	14,40 1,74	- 0,38 + 0,32	+ 3,91
22. 3 22. 15	Polaris SP. Polaris	21,11 28,36	+ 0,84 + 1,44	+ 2,56	19. 19 21. 7	Polaris SP. Polaris	1,74 11,06	- 1,21 + 0,96	+ 3,75
29. 8 30. 20	δ Ursæ Minoris δ Ursæ Min. SP.	5,21 58,83	- 0,62 + 1,24	+ 3,29 (e)	24. 6 24. 7	α Andromedæ Polaris	6,29 8,23	+ 55,64 + 0,03	+ 4,19 (f)
30. 20 31. 8	δ Ursæ Min. SP. δ Ursæ Minoris	58,83 64,07	- 0,21 + 0,41	+ 4,27	24. 7 24. 8	Polaris α Arietis	8,23 10,25	+ 8,30 + 0,02	+ 4,13 (f)
Sept. 12. 14 13. 2	Polaris Polaris SP.	20,56 12,50	+ 0,21 + 0,42	+ 2,56	28. 5 28. 7	α Pegasi Polaris	44,52 64,44	+ 13,72 + 0,02	+ 4,09 (g)
13. 2 14. 13 16. 1	Polaris SP. Polaris Polaris SP.	12,50 22,01 10,31	.. .. ..	+ 3,46	28. 7 28. 9	Polaris α Ceti	4,44 53,91	+ 55,80 + 0,02	+ 4,13 (g)
21. 12 21. 13	α Andromedæ Polaris	53,23 16,86	+ 18,94 + 0,02	+ 3,12					

(a) The mean of these is used from June 20. By mistake the adopted value is 2",70 instead of 2",76.
 (b) Not used. (c) The mean of these three is used from Aug. 4. (d) The value adopted Aug. 13 is the mean of these.
 (e) The mean of this and the next is used from Aug. 26. (f) The mean of these is used from Dec. 23.
 (g) The mean used from Dec. 27.

The meridian error in seconds of space is placed in the *third column*, with bars across to indicate the limits within which each value is used.

The correction in seconds of time applied to each transit is

$$\frac{1}{15} \times \text{meridian error} \times \sin \text{Zen. Dist.} \times \text{cosec N.P.D.},$$

the zenith distance being negative when north of the zenith, and the north polar distance negative when north of the pole.

The seconds of each transit, corrected for the three errors of collimation, level, and azimuth, are arranged in the *fourth column*. The numbers for the Sun, Jupiter, and Saturn, when both limbs have been observed, apply to their centres, the mean of the uncorrected transits of the two limbs having been corrected in the same manner as other transits.

Clock Error.—The *fifth column* contains the seconds of the assumed apparent right ascensions of the stars used for determining clock error. Among these Polaris, δ Ursæ Minoris, and 51 (Hev.) Cephei are included, because their apparent right ascensions are employed for finding the meridian error, and may in any case give the means of judging of the position of the instrument. The Assumed Mean Right Ascensions, Jan. 1, 1842, of the fundamental stars and of the three just mentioned, are given in the subjoined Table.

Star's Name.	Assumed Mean R.A. Jan. 1, 1842.	Excess over Naut. Alm. 1842.	Star's Name.	Assumed Mean R.A. Jan. 1, 1842.	Excess over Naut. Alm. 1842.
	<i>h. m. s.</i>	<i>s.</i>		<i>h. m. s.</i>	<i>s.</i>
α Andromedæ..	0. 0. 13,98	+ 0,12	Arcturus	14. 8. 27,47	+ 0,04
Polaris	1. 2. 43,51	- 0,28	ϵ Bootis	14. 38. 5,25	+ 0,01
α Arietis	1. 58. 16,81	+ 0,10	α^2 Libræ	14. 42. 8,92	+ 0,00
α Ceti	2. 54. 1,67	+ 0,07	α Coronæ Bor..	15. 27. 59,99	+ 0,07
Aldebaran	4. 26. 51,65	- 0,05	α Serpentis.....	15. 36. 29,39	+ 0,08
Rigel	5. 6. 56,89	+ 0,04	δ Ophiuchi.....	16. 6. 4,41	+ 0,10
β Tauri	5. 16. 18,49	- 0,03	Antares	16. 19. 43,83	+ 0,01
α Orionis	5. 46. 37,19	- 0,01	α Herculis	17. 7. 26,73	- 0,03
51(Hev.) Cephei	6. 24. 26,97	+ 0,00	α Ophiuchi.....	17. 27. 36,14	+ 0,03
Castor	7. 24. 30,65	- 0,05	δ Ursæ Minoris.	18. 23. 16,82	- 1,17
Procyon	7. 31. 1,71	+ 0,07	α Aquilæ	19. 43. 4,48	+ 0,06
Pollux	7. 35. 38,39	- 0,02	β Aquilæ	19. 47. 33,15	+ 0,04
α Hydræ	9. 19. 49,41	- 0,06	α^2 Capricorni ...	20. 9. 17,02	+ 0,06
Regulus	9. 59. 57,11	- 0,09	β Aquarii	21. 23. 14,30	+ 0,06
β Leonis.....	11. 40. 59,80	- 0,03	α Aquarii	21. 57. 40,07	+ 0,05
Spica	13. 16. 52,75	+ 0,10	α Pegasi	22. 56. 53,71	+ 0,04

The assumed Mean Right Ascensions were obtained by adding the annual variations to the Mean Right Ascensions Jan. 1, 1841, concluded from the Observations of 1841, whenever the number of observations from which the R.A. of any star was concluded, was not less than twenty. In all other instances, if e be the excess of an assumed R.A. of 1841 above the R.A. of the Nautical Almanac, and e' the excess resulting from a number (n) of observations in that year less than 20, the excess of the assumed R.A. of 1842 is $e + (e' - e) \frac{n}{20}$, unless a correction has been applied to the R.A. of the Nautical Almanac. The excesses in the columns above take into account the corrections given in p. x. of the Preface to the Nautical Almanac for 1842. The mean of all the excesses, excluding those of the circumpolar stars, is + 0^s.027.

To form the numbers of the fifth column, the excesses over the Nautical Almanac 1842 in the above table, are added to the seconds of the apparent R.A. given in that work. It will be seen that the corrections which are thus adopted for aberration, precession, and nutation, are the same as those of the Nautical Almanac, where, in accordance

with what is said in the Preface to the Astronomical Society's Catalogue, (pp. x. xiii. and xiv.) the constant of aberration = $20''.36$, and that of lunar nutation = $9''.25$. For Polaris, δ Ursæ Minoris, and 51 (Hev.) Cephei, the additional corrections are applied, depending on the Moon's longitude, which are given in pages 478 and 479 of the Nautical Almanac for 1842, and the apparent R.A. of the last star are interpolated with second differences.

The clock errors of the *sixth column* are the excesses of the tabular apparent right ascensions (altered as just stated) above the corrected times of transit.

The correction applied to each transit for clock error consists of two parts, the error at the preceding 0^h of the clock, and the increase of error by the clock's rate in the interval between 0^h and the time of transit. These are calculated in the following manner. The observations are divided into groups, severally containing stars proper for giving clock errors. The groups are separated by intervals during which no observations have been taken, and which, as often as possible, belong to consecutive nights. The mean of the clock errors in each group is considered to apply to the mean of the times of transit of the stars which furnish them. The comparison of this mean error with errors similarly derived from the next preceding and following groups, gives a preceding and a following rate; whence a rate is inferred which is assumed to hold uniformly throughout the middle group. No definite rule can be given for inferring the adopted rate: attention is paid to the probable degree of accuracy with which the rates it depends on are determined, and also to the proportion of the intervals separating the preceding and following mean clock errors from the intermediate one.

In determining clock errors and rates from the observations of different observers, attention is paid to the difference of their personal equations. It has been found (see Introduction of 1841, p. xxxviii.) that C's and G's observations agree very nearly, and that B's are *earlier* by $0''.28$. This quantity is applied as a correction whenever observations by C or G occur in the same group with B's, as stated in the notes, and is taken into account in adopting a rate from two groups taken by C or G and B.

The adopted rate, which is put in the *seventh column*, is employed, first, in deducing from the mean clock error of the group to which it applies, the clock errors at all the times the clock shewed 0^h in the interval between the limits of the group, which errors are arranged in the *eighth column*; and then in finding the additional correction for the interval between each transit and the next preceding 0^h . Bars are placed across the seventh and eighth columns to indicate the limits of the groups to which the successive determinations of clock rate are applied. The times of putting forward the minute-hand of the clock are stated at the bottom of the page.

The apparent right ascensions of the *ninth column* are formed by adding the two parts of the correction for clock error to the corrected times of transit contained in the fourth column. The apparent R.A. of the fundamental stars, if fewer than three are contained in the same group, and the apparent R.A. of the circumpolar stars, if the meridian error is not determined by two or more transits of one of these stars, are not inserted in the column of apparent R.A.

The *tenth column* contains the corrections for aberration, precession and nutation, by applying which the mean Right Ascensions Jan. 1, 1842, are deduced from the apparent Right Ascensions. These corrections are calculated as follows.

For Stars whose apparent right ascensions are calculated in the Nautical Almanac, the requisite corrections are found by subtracting the apparent from the mean right ascensions of that work, the former in the instances of Polaris, δ Ursæ Minoris, and 51 (Hev.) Cephei, being affected with the corrections depending on the Moon's longitude. For a star in the

Royal Astronomical Society's Catalogue, and not included in the list of the Nautical Almanac, the correction is calculated by the formula $Aa + Bb + Cc + Dd$; $\log A$, $\log B$, $\log C$, and $\log D$ being taken from the Nautical Almanac without alteration, and $\log a$, $\log b$, $\log c$, $\log d$ from the Astronomical Society's Catalogue. The sign of the result is then changed. For a star not included in that Catalogue, the correction is calculated by the following formula, depending on the expressions for a , b , c , d , given in p. xvii. of the Preface to the Catalogue, and the sign of the result is changed.

$$\begin{aligned} \text{Correction} = & \frac{A}{15} \cos R. \operatorname{cosec} N.P.D. + \frac{B}{15} \sin R. \operatorname{cosec} N.P.D. + C \times (n^{\circ} \log = 0,4869) \\ & + \frac{C}{15} \times (n^{\circ} \log = 1,3020) \times \sin R. \cotan N.P.D. + \frac{D}{15} \cos R. \cotan N.P.D. \end{aligned}$$

The *Apparent Right Ascensions of Polaris and δ Ursæ Minoris*, (pages 96 and 97) are merely extracted from the columns of Calculated Apparent Right Ascensions: and the *Mean Right Ascensions, Jan. 1, 1842, of these Stars* (in the same pages) are formed by adding algebraically the corrections in the tenth column to the apparent Right Ascensions. The *Mean Right Ascensions, Jan. 1, 1842, of Stars observed in the year 1842*, (pages 98—110) are formed in the same manner.

The *Catalogue* in pages 111—113 contains the mean R.A. of each star concluded from all the preceding values of its mean R.A. The *Annual Variations* are either adopted from the Nautical Almanac, or are computed by the following formula, the constants of which are derived from the data in Bessel's *Tabulæ Regiomontanæ*, p. x.

$$\text{Annual Variation in R.A.} = 3',07044 + 1',33703 \times \cotan N.P.D. \times \sin R.A.$$

Proper motions are not taken into account unless they are included in the Annual Variations adopted from the Nautical Almanac.

For facilitating the identifying of the stars, columns of approximate N.P.D. are added, and of anonymous stars the magnitudes are also mentioned. When the star is double, the component to which the R.A. applies is indicated by the letters *np*, *nf*, *sp*, *sf*, in their usual significations, the angular positions of the stars being known from previous observations with the Northumberland Telescope. It is presumed, if the observer has not noted which star was taken, and the components are far enough apart to be seen distinctly in the Transit Telescope, that the selection has been made according to the rule in p. i. Also if the star cannot be seen double in the Transit Telescope, and one of the components is known to be considerably brighter than the other from observations with the Northumberland Telescope, the transit observation is considered to apply to the brighter. In several instances of very close components of nearly equal magnitude, no letters are affixed, and the R.A. is supposed to apply to the middle point between them. When the star is triple or multiple, the component to which the R.A. applies is mentioned in a note at the bottom of the page.

II. *Observations with the Mural Circle and Calculation of Geocentric North Polar Distances.*

The particulars of observations with the Mural Circle, and the Calculations of Geocentric North Polar Distances, are recorded in pages 116—211. The left-hand pages contain the pointer and microscope readings, with those corrections only that are required for finding the concluded circle readings: the right-hand pages exhibit, first, the apparent Zenith Distances, as deduced from the concluded circle readings, and then the Geocentric North Polar Distances of the fixed stars and centres of the moving bodies, together with the elements of the Calculations by which the latter are derived from the Apparent Zenith Distances. The following is the explanation of the contents of the separate columns.

The *first column* has the day of observation, commencing always with the Sun's passage.

The *second column* contains the name of the object observed, with letters indicating the method of observation. *R* denotes that it is observed by reflexion: *M* that it is observed with the micrometer wire. When the limb of a planet is mentioned, it is that observed with the fixed wire. The Stars are named according to the rule adopted with respect to the Transit observations. Anonymous stars are designated by their approximate right ascensions, which may be inaccurate 2 or 3 seconds.

The order of the six microscopes, beginning with *A*, which is at the northern extremity of the horizontal diameter of the circle, and proceeding over the highest part of the limb, is *ACEBDF*, so that *A* and *B*, *C* and *D*, *E* and *F*, are severally at the ends of a diameter. All micrometer readings increase as the micrometer wires move *towards* the graduated micrometer-heads. The microscopes have their micrometer-heads all directed the same way relatively to the graduation of the circle: that of *A* is *downwards*. When the Telescope is horizontal and its object glass looks southward, the micrometer-head of the eye-piece micrometer is also downwards.

The *third column* gives the indication of the pointer. The divisions of the circle are 5' apart, and the pointer is placed *below* microscope *A* at an interval of 10°.45' nearly from the zero of its reading. The graduation proceeds in the direction from the microscope to the pointer, and the pointer reading in column 3 is the degrees and minutes of that division which, in the order of graduation, comes next *before* the position of the pointer. This, as first set down, is sometimes erroneous by some multiple of 5'; but as the error is readily detected in the computations, no notice is taken of it in the notes.

The *six succeeding columns* contain the readings of the six microscopes. The minutes which are set down in the first of these columns, are indicated by the number of indents of the comb of the microscope in the interval between the division bisected by the micrometer wire and the hole of the comb; and the seconds and fraction of a second are taken from the micrometer-head. The bisected division is that next to the hole, on the side, as seen in the microscope, of the micrometer-head, (excepting in some instances mentioned hereafter), and as the direction of the micrometer-head from the hole of the comb is that in which the graduation proceeds, the microscope reading of *A* is equal to the arc between the division which gives the pointer reading of column 3, and a certain fixed point distant exactly 10°.45' from the zero of the microscope reading. Consequently the microscope reading *added* to the pointer reading is an arc of the circle, commencing with the zero of its graduation and terminating at that point. If the circle were perfectly graduated, and always retained the same circular form, and if the bisections of the divisions were accurately performed, arcs for different positions of the circle, referred in this way to the same point, would be comparable with each other, though determined by only one microscope, provided also the zero of the microscope reading retained a fixed position relatively to the axis of the circle. Errors from imperfect graduation, inaccurate bisections, and deviations from the circular form, may be presumed to be corrected in a great measure by the use of six microscopes, disposed at the opposite ends of diameters, and at equal distances round the circle. It appears, however, that a residual inequality remains, of which more will be said hereafter.

The *tenth column* contains the readings of the micrometer for the objects in the second column to which the letter *M* is attached.

The amount of correction for reducing an observation with the micrometer-wire to the fixed wire, is placed in the *eleventh column*. This correction is the difference between the micrometer reading and the reading at coincidence of the micrometer-wire with the fixed wire, converted into arc by multiplying by 20",859, which is the arc corresponding to one

revolution of the micrometer-head. The micrometer readings increase as the micrometer-wire moves in the direction from the fixed wire to the micrometer-head, which is also the direction in which the graduation of the circle proceeds. Hence the correction is positive or negative, according as the micrometer reading is less or greater than the reading at coincidence.

As the micrometer-wire is not exactly parallel to the fixed wire, the coincidence readings at all the wires are observed from time to time, as well as more frequently the coincidence at the middle wire, and different values are used according to the position of the object in the field at the time of its bisection by the micrometer-wire. The times of observing the coincidences are stated in the left-hand pages, and the new values with the dates from which they are used, are given in the right-hand pages, in the spaces below the columns.

The coincidence at the middle wire only was observed from the beginning of the year to July 7, and the coincidences at the first, second, fourth, and fifth were inferred from that at the middle wire by applying the differences $-0^{\circ}.010$, $-0^{\circ}.003$, $+0^{\circ}.004$, $+0^{\circ}.010$ respectively. These differences are mean results from twelve observations of coincidences at the five wires taken in the year 1840 from Jan. 1 to Aug. 5. After July 7 the coincidences were taken monthly at the five wires, and when taken at the middle wire only, the differences are inferred from the preceding or following observations of coincidences at all the wires.

When an observation is taken between two wires, the adopted coincidence is interpolated; when taken beyond the wires, an allowance for difference of coincidence is calculated at the rate of $0^{\circ}.004$ for an interval equal to that between consecutive wires, and is applied with its proper sign to the coincidence at the wire nearest the place of observation.

July 16, 7^h. I made the following observations for determining the value of one revolution of the eye-piece micrometer. The micrometer-wire was made to bisect a small rectangular aperture at the top of Grantchester tower, which was very steady and distinct during the three first bisections. An interval elapsed between these and the remaining bisections, during which the temperature had become variable and the tower unsteady. The five last measures are consequently not so worthy of confidence as the two first.

Micrometer reading.	Pointer reading.	Microscope A	B	C	D	E	F	Correction for Runs.	Concluded Circle reading.	Difference.	Mean of consecutive differences.
+ 15	336.45	4.48,4	52,9	51,2	47,2	53,8	47,6	+ 0,2	336.49.50,22	10.25,79	10.25,76
- 15	336.35	4.22,6	26,8	24,5	21,8	28,7	21,6	+ 0,6	336.39.24,43	10.25,72	
+ 15	336.45	4.49,2	52,5	50,6	46,6	54,4	47,4	+ 0,2	336.49.50,15		
- 10	336.40	1. 6,2	9,7	8,5	4,2	11,2	4,5	- 1,2	336.41. 7,18	6.55,12	6.56,43 6.57,44 6.57,96
+ 10	336.45	2. 62,2	66,1	63,8	59,0	66,2	59,8	- 3,3	336.48. 2,30	6.57,73	
- 10	336.40	1. 3,5	7,8	5,5	2,6	7,4	1,8	- 1,2	336.41. 4,57	6.57,15	
+ 10	336.45	2. 61,1	65,5	63,4	58,6	65,6	59,4	- 3,3	336.48. 1,72	6.58,77	
- 10	336.40	1. 2,6	5,2	4,2	0,5	5,7	0,6	- 1,1	336.41. 2,95		

The temperature was at $65^{\circ}.0$ just before the observations were commenced, and at $61^{\circ}.5$ just after they were finished. On account of the variation of temperature, the mean of two consecutive differences is considered to be the best measure of the interval. The correction for runs, the amount of which for 5' was found immediately after the above measures to be $-5^{\circ}.4$, is applied on a principle which will be shortly explained. In the three first readings the divisions on the *negative* side of zero were bisected. The first set of measures gives $20^{\circ}.859$ for the value of one micrometer revolution, and the mean result from the other set is $20^{\circ}.864$: as these differ little from each other, the former is adopted.

When the observation is not made at or very near the middle wire, the distance of the place of bisection from the middle wire is expressed in the *twelfth column* in whole intervals and parts of an interval between consecutive wires, the negative or positive sign being affixed according as the bisection was made *before* or *after* passing the middle wire. The times by Molyneux of the bisection of Polaris and δ Ursæ Minoris, whenever these stars are not observed very near the true meridian, are stated in the notes at the bottom of the page.

The corrections in the *thirteenth column* serve to reduce the observation to what it would have been if taken at the middle wire, and depend, for the fixed stars, only on the curvature of their diurnal paths, but for the moving bodies both on curvature of path and on change of N.P.D. In the latter case the sum of the corrections is put in column 13. These corrections are calculated as follows.

The correction for curvature of path is obtained for Polaris and δ Ursæ Minoris by converting the time by Molyneux into time by Hardy, by means of comparisons given below the columns of the left-hand pages, and thence inferring the true sidereal time from the error of Hardy given by the transit observations. The correction is then immediately deduced from the difference of this time and the time of meridian passage given in the Nautical Almanac, by means of tables especially calculated for these two stars. For other stars, the calculation is performed by a known formula, according to which, the correction for a given distance from the middle wire varies as the tangent of declination, and for a given declination varies as the square of the distance. When the declination is 45° , the correction for one interval from the middle wire, which is traversed by an equatoreal star in $16^s.6$, is $0''.1503$. Since in looking directly at an object between the pole and the equator, the Telescope is turned by reason of the curvature of path too far in the direction in which the graduation proceeds, the circle reading is too small, and the correction is consequently positive. The contrary is the case below the equator and below the pole. In reflexion observations, the error of position of the Telescope is in the opposite direction, and the sign of the correction is always contrary to what it is in observing directly the same objects.

The correction for change of N.P.D. is calculated in the case of the Sun and Planets, by inferring the change in the time between the instant of observation and the passage across the middle wire, from the horary variation given in the Nautical Almanac. This time is estimated by intervals and parts of an interval between the wires, taking each interval equal to $16^s.6 \times \sec.$ of declination. In observations of the Moon, an exact value of the time of passing from one wire to the next is requisite, on account of the rapid change of her N.P.D. The value employed is $16^s.6$, multiplied by the factor used for correcting to the mean of all the wires in imperfect transit observations of the Moon, the expression for which is given p. ii. The required correction is then inferred from the variation of the Moon's N.P.D. in 10^m , given in the Nautical Almanac. The sign of the correction is determined by considering that when the N.P.D. of the moving body is increasing, before it passes the middle wire the Telescope is advanced too far in the direction of the circle's graduation, and after passing, too far in the contrary direction. The circle reading requires a *plus* correction in the first case, and a *minus* correction in the other. If the N.P.D. is decreasing, the signs of the corrections are the contrary.

The microscope readings obtained in the manner stated p. xiii. are affected with an error of *Runs*, unless the micrometer-wire is carried by five turns of the micrometer exactly from the image of one division to that of the next, which can very rarely happen. The corrections applied on this account are obtained in the following manner. The circle is clamped in such a position, that a division is near the zero of the microscope on the *negative* side, or that removed from the micrometer-head; and this division with the adjacent one on the *positive* side of zero, is bisected. The excess of the micrometer reading for the latter above

the micrometer reading for the other, with sign changed, is the quantity to be added to a micrometer reading of 5', to correct for the inequality in question. For a less reading the correction is proportionally less. Instead of correcting for each microscope reading separately, it is sufficiently accurate and more expeditious, to add the excesses of the six microscopes together, to take a part of the sum with sign changed, bearing the same ratio to the whole as the approximate mean microscope reading to 5', and then adding up this part with the six microscope readings, to divide the sum by 6 to obtain the corrected mean reading. The sum of the excesses with sign changed, is the "Correction for Runs" at the bottom of the right-hand pages, where also the times of commencing a new value are stated. The dates of the observations for runs are given on the opposite pages.

It sometimes happens that a division falls so near the zero of the microscope that it is uncertain whether it be on the negative or positive side. In such a case it is generally bisected, and when found to be on the negative side, the pointer reading and minutes of the microscope readings are put down for the sake of uniformity as if the division on the positive side had been bisected, but no correction, or a small negative one, is applied for runs. When this circumstance occurs it is mentioned in the notes.

The following Table exhibits the results of the observations made in 1842 for the error of Runs of the six microscopes. The Temperature in degrees of Fahrenheit is added, as the variations of Runs appear to depend in great measure on changes of Temperature.

Day of Observation 1842.	Excess of micrometer-reading for positive division above micrometer-reading for negative division, for each microscope.						Sum of Ex- cesses.	Temperature.		Day of Observation 1842.	Excess of micrometer-reading for positive division above micrometer-reading for negative division, for each microscope.						Sum of Ex- cesses.	Temperature.
	A	B	C	D	E	F					A	B	C	D	E	F		
Jan. 24	-1,3	-1,6	-0,5	-1,5	-1,1	0,0	-6,0	32		July 16	+1,0	+1,4	+1,6	-0,6	+0,4	+1,6	+5,4	62
31	-0,1	-0,6	+0,1	-1,9	-0,2	+0,8	-1,9	40		23	+1,4	+0,6	+0,5	-0,3	0,0	+1,6	+3,8	61
Feb. 14	-0,9	-1,0	+0,6	-1,8	0,0	+0,7	-2,4	49		30	+0,9	+0,9	+1,5	-0,5	+0,5	+2,0	+5,3	60
18	-0,5	-0,7	+0,2	-1,3	-0,1	-0,7	-3,1	37		Aug. 8	+0,1	-0,3	+1,7	+0,1	-0,1	+1,5	+3,0	69
27	+0,1	+0,1	+1,1	-1,1	-0,4	+0,4	+0,2	44		14	+0,8	0,0	+1,1	-0,3	+0,8	+1,3	+3,7	72
Mar. 5	-0,3	0,0	+1,0	-0,2	-0,3	+0,3	+0,5	40		Sept. 6	+0,7	+0,4	+1,1	-1,0	-0,2	+1,2	+2,2	64
22	-0,2	-1,0	+1,0	-1,3	-1,0	+0,6	-1,9	42		15	-0,2	+0,5	+0,9	-1,3	0,0	+1,5	+1,4	59
Apr. 5	-0,8	+1,0	+0,9	-1,3	-0,2	-0,7	-1,1	42		29	-0,1	+0,2	+1,2	-0,8	-0,2	+1,1	+1,4	52
20	+0,1	+0,5	+0,8	-1,6	-0,1	+0,9	+0,6	46		Oct. 10	-0,2	0,0	+1,3	-1,6	+0,2	+0,6	+0,3	50
26	0,0	-0,8	0,0	-0,7	-0,8	+1,2	-1,1	55		21	-0,3	-0,5	+0,8	-0,8	+0,9	+0,4	+0,5	41
May 1	+0,2	-1,0	+1,0	+0,3	+0,6	+0,7	+1,8	58		28	+0,8	0,0	+0,8	-1,8	-0,5	+0,7	0,0	45
24	-0,1	-0,2	+1,5	-1,5	-0,5	+1,0	+0,2	55		Nov. 8	-0,6	-0,7	+0,3	-0,8	+0,1	+0,7	-1,0	44
June 5	+0,1	-1,0	+1,1	-0,7	-0,4	+1,2	+0,3	66		25	+0,5	-0,1	+0,4	-1,2	+0,9	+0,4	+0,9	42
12	0,0	+0,6	+0,9	-0,3	+0,3	+0,5	+2,0	64		Dec. 4	-0,8	+0,7	+0,6	-1,8	-0,6	+0,3	-1,6	43
21	+0,7	0,0	+1,5	-0,7	-0,1	+0,9	+2,3	56		14	-0,6	-1,4	+1,7	-0,3	-0,2	+1,5	+0,7	47
July 7	-0,9	-0,2	+0,6	-1,1	+0,1	+1,5	0,0	59		24	+0,4	0,0	+0,4	-1,1	-0,7	+1,4	+0,4	37
										30	0,0	0,0	+1,3	-0,9	+0,1	+1,0	+1,5	52

The concluded circle reading in the *fourteenth column* is the mean of the microscope readings with all the above corrections applied. It is, therefore, the reading of the circle, supposing the microscopes to be in accurate adjustment for runs, and the object to have been observed with the fixed wire as it passed the middle vertical wire. For Polaris and δ Ursæ Minoris the concluded reading applies to the time of meridian passage.

The *fifteenth column* contains the initial of the observer's name. The observations marked *C* are by myself, and those marked *G* by Mr Glaisher.

The mean between the two concluded readings of the reflexion and direct observations of the same star, is the reading corresponding to one or the other horizontal position of the Telescope, and, increased or diminished, as the position may require, by 90° , gives the reading when the Telescope is vertical and object-glass upwards. The seconds of the readings thus determined, which for shortness are called "zenith points," are placed in the *first column* of the *right-hand* page. As the zenith points are found to be discordant with each other, a mean zenith point is adopted for forming the zenith distances of all observations included within certain limits, and is placed, with the date of its commencement, at the bottom of the page. The adopted zenith points used in 1842 have been obtained by a rule somewhat different from that employed first in 1839, but not sensibly different in its results. The stars observed by reflexion and directly within 15° of the zenith are divided into two groups, one north, the other south of the zenith. The mean of the zenith points of each group is supposed to correspond to the mean of the zenith distances, and from these two mean zenith points at known distances from the zenith, the zenith point corresponding to the zenith is found by interpolation, and is the adopted zenith point. If there were no cause of discordance the zenith points determined by observations at different zenith distances would all be the same; and consequently the differences between the adopted zenith point and the other zenith points, are measures of the discordance at different zenith distances from whatever cause it may arise, and furnish the means of correcting for it, as will be shewn further on.

The limits between which the same adopted zenith point is used, include all observations in the course of which no considerable variation of the separate zenith points, distinct from the discordance above-mentioned, can be recognised. Usually they are determined by changes arising from instrumental adjustments: but it also happens that gradual changes from unknown causes make the adoption of a new zenith point necessary.

The *second column* contains the apparent zenith distance. This for a direct observation is the algebraic excess of the circle reading of column 14 above the adopted zenith point, and for a reflexion observation, the algebraic excess of the corresponding nadir point above the circle reading. The object is south or north of the zenith according as the excess is in either case positive or negative.

The four next columns contain the materials for the calculation of *refraction*. The *third column* has the height of the barometer, as shewn by a cistern-barometer constructed by Dollond, and attached to the circle pier. The lower surface of the mercury is raised by a screw pressing the bag till the light seen below a brass edge is excluded; and a brass slider is brought to the upper surface to shut out the light in the same way. The *fourth column* has the reading of the thermometer whose bulb is plunged in the cistern of the barometer.

As it appeared by a comparison of this with six other barometers, (the particulars of which are given in the Volume for 1835, p. xxxi) that its readings were too small by 0.1 inch nearly, the height immediately read from the barometer, which is that recorded in column 3, has always been increased by that quantity in calculating the refraction.

The *fifth column* has the mean of the readings of the two free thermometers. These thermometers are carried by jointed arms attached to the top of the pier, one at the North the other at the South end, and are nearly on a level with the upper limb of the circle. Precautions have been taken to ensure the free passage of air by the thermometer bulbs, and to protect them from radiation. When the Sun is near the meridian, the thermometers are turned from its rays by means of the jointed arms. All but the lowest shutters of the circle-room are kept open before and during observations, except when it is occasionally necessary for obtaining reflexion observations to close them partially a few

minutes, on account of the disturbance of the mercury by the wind. Thus there is generally a strong current of air past the thermometers; and as the observing lamps are removed from the room when not in use, it may be presumed that the interior temperature is very little different from the exterior*.

The refraction in the *sixth column* is calculated by Bessel's tables, (*Tabulæ Regiomontanæ*, p. 538, &c.) by making use of the Appendix to the *Greenwich Observations* of 1836. In this mode of calculation the reading of the attached is supposed to be the same as that of the free thermometer. The former reading, though not made use of, is inserted in the printed columns, to furnish the means of correcting, if required, for the error of this supposition.

The *seventh column* contains the parallax. If r and D be respectively the lines from the centre of the Earth to the place of observation and object observed, z the angle they make with each other, r' the Earth's equatoreal radius, D' the mean distance of the Sun from the Earth, and p the parallax, then the formula used for the Sun's limbs and for the planets is,

$$p = \frac{r}{r'} \times \frac{r'}{D'} \times \frac{D'}{D} \times \sin z.$$

$\text{Log } \frac{r}{r'}$ is taken = 9,9990916, which supposes the ratio of the Earth's axes to be that of 297 to 298; $\log \frac{r'}{D'} = 0,9333658$, the assumed value of the Sun's equatoreal horizontal parallax at the mean distance being $8'',5776$; $\log \frac{D'}{D}$ is the arithmetical complement of the log. of distance given in the Nautical Almanac; and z is found by subtracting $11'.12''$, the angle of the vertical given by the above ratio of the axes, from the observed zenith distance.

The formula used for computing the parallax of the Moon's limbs is

$$\sin p = \frac{r}{r'} \sin (P + a) \sin z,$$

where P is the equatoreal horizontal parallax, which is interpolated with second differences from the Nautical Almanac, and a is a small correction introduced by finding exactly the parallax of the limb, that is, the angle made by a tangent to the highest or lowest point of the Moon's surface, as seen from the place of observation, with a tangent to the highest or lowest point, as seen from the Earth's centre. In using the above formula, the sine is not considered equal to the arc. The other elements of the calculation are the same as for the planets.

For the calculation of a , which is dependent on the zenith distance, I must refer to the *Cambridge Observations*, Vol. iv., for 1831, p. 147. The following is a table of its values, for the North and South Limbs, and for different zenith distances.

Zenith Distance.	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
Corr. for N.L.	- 0,03	- 0,04	- 0,05	- 0,06	- 0,06	- 0,07	- 0,08	- 0,08	- 0,09	- 0,09	- 0,09
Corr. for S.L.	+ 0,10	+ 0,11	+ 0,12	+ 0,12	+ 0,13	+ 0,14	+ 0,15	+ 0,15	+ 0,16	+ 0,16	+ 0,16

The *eighth column* contains the micrometer reading, when one limb of a planet is observed with the micrometer wire, and the other on the fixed wire.

* See Introduction to Volume for 1835, p. xxxiii.

The *ninth column* contains the semidiameters of the Sun and Moon, and those of the planets whenever they are not observed by bisecting their centres. The Sun's semidiameter is taken from pages II of the Nautical Almanac: the Moon's is interpolated with second differences from the Nautical Almanac. The apparent diameters of Jupiter and Saturn in the vertical direction, are given by the micrometer readings of column 8, treated in the same manner as those on the left-hand page, and the semidiameters of column 9 are found by merely halving the results.

The geocentric N.P.D. of the centre in the *tenth column* is obtained by applying to the apparent zenith distance of column 2, the corrections for refraction, parallax, and semidiameter, and adding $37^{\circ}.47'.8''.28$, the assumed colatitude of the Observatory*. The result is, therefore, the N.P.D. of the centre of the object as viewed from the Earth's centre, at the time of passing the middle wire, affected by uncorrected instrumental errors and errors of observation, as also by any errors in the assumed values of the constants employed in the calculations. The negative sign denotes that the object was observed below the pole.

The *eleventh column* contains the corrections to be applied to the apparent N.P.D. of stars to obtain their mean N.P.D. at the beginning of the year. These corrections with their proper signs are obtained as follows.

For stars included in the list of the Nautical Almanac, the corrections are obtained by subtracting the mean from the apparent declinations of that work, the latter being found for the days of observation by interpolation. For Stars not in the Nautical Almanac, but included in the Catalogue of the Royal Astronomical Society, the corrections are calculated by the formula, $Aa' + Bb' + Cc' + Dd'$, $\log A$, $\log B$, $\log C$, $\log D$, being taken from the Nautical Almanac; and $\log a'$, $\log b'$, $\log c'$, $\log d'$, from the Society's Catalogue. For stars not in that Catalogue, the corrections are calculated by the following formula, depending on the expressions for a' , b' , c' , d' , given in p. xvii. of the Preface:

$$\begin{aligned} \text{Correction} = & A \times (N^{\circ} . \log = 9,6375) \times \sin N.P.D. - A . \sin R \cos N.P.D. \\ & + B \cos R \cos N.P.D. + C \times (N^{\circ} . \log = 1,3020) \cos R - D \sin R. \end{aligned}$$

The *Mean North Polar Distances*, Jan. 1, 1842, of the stars observed in 1842, as deduced from each day's observation, are arranged in pages 214—230. These are derived from the apparent N.P.D. by merely applying the corrections just spoken of. When the resulting mean N.P.D. is included in brackets, no use is made of it in deducing the concluded mean.

The results by the same star, when observed above and when below the pole, are arranged separately to serve for correcting the assumed colatitude. Also, the results by direct observations are separated from those by reflexion observations of the same star, for the purpose of exhibiting the effect of the discordance of zenith points before spoken of, and furnishing data for applying a correction.

A *Catalogue of the Concluded Mean North Polar Distances*, Jan. 1, 1842, with the *Annual Variations*, is given in pages 231—234. The concluded mean is the mean (corrected as stated below) of all the preceding mean N.P.D.; and the annual variations are either taken from the Nautical Almanac, or are computed by the formula $-20''.0555 \times \cos R.A.$, the constant of which is derived from the *Tab. Regiomont.* p. x. Proper motions are not taken into account unless they are included in the annual variations adopted from the Nautical Almanac. For greater ease in identifying the stars, columns of their approximate

* In six instances small corrections have been applied to the Geocentric N.P.D. of the Moon for defect of illumination of the Limb; viz. on Feb. 24, April 16, July 21, Aug. 20, Sept. 12, and Dec. 17. The amounts, which are stated in the notes, were obtained by using a celestial globe (see p. xxvi of the Introduction to the Volume for 1835) excepting that of April 16, which was calculated in the manner explained at p. xli of the Introduction to the Volume for 1838.

mean R.A. Jan. 1, 1842 are added, and of anonymous stars the approximate magnitudes are also mentioned. The component of a double or multiple star to which the N.P.D. applies, is indicated in the manner, and according to the considerations, stated in p. xii with reference to the Catalogue of R.A.

The corrections applied to the mean of all the different determinations of mean N.P.D., to obtain the concluded mean, are for error of assumed colatitude and for discordance of zenith points. The former correction is derived from a new determination of the colatitude of the Observatory, calculated from all the observations of the same stars above and below pole which were made in the years 1836, 1837 and 1838. The calculation is given in pages liii—lviii of the Introduction to the Volume of 1838, and the result is, that the assumed colatitude $37^{\circ}.47'.8''.28$ should be corrected by $+0''.09$. This quantity is accordingly added algebraically to the mean N.P.D., considering them negative when the observations are below the pole.

The correction for discordance of zenith points is applied on the following principle. The discordance is of such a nature, that the circle reading for zenith point is in general less by a star observed south of the zenith than by a star observed north of the zenith. Apparently when the object-glass is to the south of zenith, the Telescope, whether directed to the heavens or the trough of mercury, requires to be turned for bisecting an object, a little farther in the direction of the graduation, than if the cause of inequality did not exist; and when the object-glass is to the north of zenith, a little in the contrary direction. Whatever may be the cause of the discordance, the error it produces may be presumed to be corrected by reducing the different zenith points to the zenith point corresponding to a *given* zenith distance. Hence, if M be the zenith point adopted according to the rule explained in page xvii, and Z the zenith point resulting from a particular double observation south of zenith, $M-Z$ is the error of the circle reading in defect, both for the reflexion and the direct observation, supposing both to be equally affected by the inequality. By this quantity the N.P.D. is too small as determined by the direct observation, and too great as determined by the reflexion observation; so that the excess of the latter determination above the other is twice $M-Z$. These inferences apply to observations north of the zenith, by taking $M-Z$ a negative quantity when Z is greater than M , and the N.P.D. negative when the star is observed below the pole. The following table exhibits for each star observed directly and by reflexion, the mean value of $M-Z$, derived from the lists in pages 214—230, by halving the algebraic excess of the mean of the N.P.D. by reflexion above the mean of the corresponding N.P.D. by direct vision.

Mean Excess for each Star of the adopted Zenith Point above the Zenith Points given by Observation in 1842.

Star's Name.	Zen. Dist.	No. of Obs.	Mean of M-Z.	Star's Name.	Zen. Dist.	No. of Obs.	Mean of M-Z.
γ Ursæ Majoris SP.	-73.13	6	-0.71	γ Andromedæ.....	+10.39	6	+0.23
α Cassiopeiæ SP. ...	72.7	2	-1.20	ϵ Persei.....	12.40	1	+0.64
ζ Cephei SP.....	70.22	1	-0.08	η Lyræ.....	13.20	3	+0.25
δ Ursæ Majoris SP.	69.52	3	+0.12	α Lyræ.....	13.34	26	+0.25
α Cephei SP.....	65.52	2	+0.32	61 Cygni.....	14.14	5	-0.05
α Ursæ Majoris SP.	65.11	8	+0.32	β Lyræ.....	19.2	12	+0.22
ι Cephei SP.....	62.25	2	+0.02	Castor.....	19.59	5	+0.92
δ Draconis SP.....	60.24	1	+0.44	ζ Cygni.....	22.38	3	+0.50
55 Camelopardi SP.	58.51	4	-0.17	β Tauri.....	23.45	4	+0.79
β Cephei SP.....	57.55	1	+0.55	Pollux.....	23.49	4	+0.87
κ Draconis SP.....	57.7	4	+0.03	α Andromedæ.....	24.0	9	+0.70
β Ursæ Min. SP....	52.59	2	-0.11	ϵ Bootis.....	24.28	3	+0.02
γ Cephei SP.....	51.2	2	+0.22	α Coronæ Borealis...	24.58	2	-0.10
ζ Ursæ Min. SP. ...	49.30	5	+0.51	β Pegasi.....	24.59	6	+0.22
ϵ Ursæ Minoris SP.	45.30	1	+0.30	125 Tauri.....	26.25	1	+0.56
δ Ursæ Min. SP....	41.12	5	+0.35	κ Tauri.....	27.25	1	-0.11
Polaris SP.....	39.19	23	-1.07	ϵ Leonis.....	27.43	2	+0.61
λ Ursæ Minoris SP.	38.57	2	-0.55	η Tauri.....	28.36	5	+0.98
λ Ursæ Minoris.....	36.37	7	-0.23	ζ Andromedæ.....	28.49	2	+0.96
Polaris.....	36.15	24	-0.56	α Arietis.....	29.30	1	+0.39
δ Ursæ Minoris.....	34.23	13	-1.05	δ Geminorum.....	29.57	6	+0.39
ϵ Ursæ Minoris.....	30.4	6	-0.25	δ Leonis.....	30.50	4	+0.26
ζ Ursæ Minoris.....	26.4	5	-1.33	Arcturus.....	32.12	6	+0.40
γ Cephei.....	24.32	6	-0.77	η Bootis.....	33.1	5	+0.20
β Ursæ Minoris.....	22.35	8	-1.15	γ Arietis.....	33.42	1	+2.06
κ Draconis.....	18.27	1	-0.30	Aldebaran.....	36.2	6	+1.29
β Cephei.....	17.39	5	-1.02	β Leonis.....	36.46	9	+0.55
55 Camelopardi.....	16.43	1	-0.30	α Delphini.....	36.51	3	+0.74
ι Cephei.....	13.9	1	-2.03	α Herculis.....	37.38	4	+0.10
α Ursæ Majoris.....	10.23	21	-0.38	η Piscium.....	37.41	1	-0.83
α Cephei.....	9.42	19	-0.40	γ Pegasi.....	37.55	5	+0.35
η Draconis.....	9.40	7	-0.66	ζ Aquilæ.....	38.35	3	+0.93
α Lyncis.....	9.20	1	+0.48	Regulus.....	39.29	11	-0.14
η Cephei.....	9.1	6	+0.20	α Ophiuchi.....	39.32	1	-0.08
ν Ursæ Majoris.....	7.34	2	-0.29	γ Aquilæ.....	41.59	7	+0.17
σ Draconis.....	6.59	2	+0.28	ζ Pegasi.....	42.12	3	+0.12
δ Ursæ Majoris.....	5.42	3	-0.28	ϵ Pegasi.....	43.4	3	-0.35
ζ Cephei.....	5.13	3	-0.80	α Aquilæ.....	43.45	5	+0.47
ϵ Cephei.....	4.3	4	-0.54	α Orionis.....	44.51	4	+0.52
α Cassiopeiæ.....	3.27	20	-0.15	ϵ Piscium.....	45.11	1	-0.48
θ Persei.....	2.54	2	-0.22	β Aquilæ.....	46.12	4	+0.22
γ Ursæ Majoris.....	-2.21	17	-0.53	Procyon.....	46.35	5	+0.20
η Ursæ Majoris.....	+2.7	13	+0.54	ι Piscium.....	47.27	4	-0.02
θ Cygni.....	2.21	6	+0.19	δ Aquilæ.....	49.25	3	+0.71
α Persei.....	2.55	8	+0.20	γ Ceti.....	49.39	1	+0.07
ι Ursæ Majoris.....	3.34	5	-0.59	δ Aquilæ.....	50.19	2	-0.19
μ Persei.....	4.13	1	-0.24	α Aquarii.....	53.18	2	+0.84
51 Andromedæ.....	4.23	3	-0.02	η Serpentis.....	55.9	3	+1.19
Capella.....	6.23	13	+0.47	δ Ophiuchi.....	55.30	4	+0.22
α Cygni.....	7.30	19	+0.41	β Aquarii.....	58.29	2	+0.78
ξ Andromedæ.....	7.31	2	-0.12	30 Aquarii.....	59.30	1	+0.33
λ Ursæ Majoris.....	8.31	4	+0.04	α Hydræ.....	60.12	1	+1.28
				β Libræ.....	61.1	2	+0.90
				Spica.....	62.33	3	+0.53
				α^1 Capricorni.....	65.12	3	+0.68
				α^2 Capricorni.....	65.15	7	+0.37
				α^2 Libræ.....	67.36	4	+0.46

From the preceding table, the one subjoined of corrections to be applied to N.P.D. observed directly, was deduced as follows. The above mean values of $M-Z$ were divided into groups the limits of which, (indicated by the lines across,) were chosen so that the stars of each group do not greatly differ in zenith distance. Each mean value in the group was multiplied by the number of observations by which it was determined, and the corresponding zenith distance by the same number. The sum of each series of products being divided by the whole number of observations in the group, the resulting value of $M-Z$ was considered to belong to the resulting zenith distance. A line of abscissæ was then drawn on which these zenith distances were set off, and the corresponding values of $M-Z$ being taken for ordinates, a curve was traced by hand among the points thus determined, so as to approach nearer to any point, the greater the number of observations by which its position was assigned. Ordinates of this curve were then measured at intervals of 5° , and the measures with the corresponding N.P.D. tabulated as follows, to serve for correcting by interpolation at any proposed N.P.D. From what has been already said, the sign of the correction for a direct observation is the same as that of $M-Z$, or the ordinate of the curve.

Corrections for Discordance of Zenith Points, to be added algebraically to N.P.D. by direct Observations, 1842.

N.P.D.	Correction.	N.P.D.	Correction.	N.P.D.	Correction.
0		0		0	
- 40	- 0,19	+ 15	- 0,90	+ 70	+ 0,49
35	- 0,08	20	- 0,80	75	+ 0,40
30	+ 0,03	25	- 0,63	80	+ 0,20
25	+ 0,14	30	- 0,44	85	+ 0,21
20	+ 0,17	35	- 0,19	90	+ 0,39
15	+ 0,12	40	+ 0,10	95	+ 0,57
10	- 0,05	45	+ 0,27	100	+ 0,63
- 5	- 0,41	50	+ 0,38	105	+ 0,65
0	- 0,71	55	+ 0,45	110	+ 0,66
+ 5	- 0,86	60	+ 0,49	115	+ 0,67
+ 10	- 0,92	+ 65	+ 0,50	+ 120	+ 0,67

The corrections to N.P.D. obtained by reflexion observations are the same with contrary signs.

The *Sidereal Intervals occupied by transits of the Diameters of the Sun, Moon, Jupiter, and Saturn's Ring* from the Transit observations; and their *Vertical Diameters* from the Circle observations, compared with the same from the *Nautical Almanac*, are collected in pages 236—239.

The Sidereal Intervals are the differences of the concluded transits of the first and second limbs over the mean of the seven wires, corrections having been applied in the case of the Moon for the defect of illumination of one of the limbs, as stated in the notes to the Transits. The rule by which this correction has been calculated (given in the Introduction of the Cambridge Observations of 1835, p. xv.) is to ascertain the Moon's distance in R.A. from the point of opposition to the Sun, and multiply this distance by the cosine of the Sun's declination, in order to obtain the length of the arc of a great circle drawn perpendicularly from the Sun's place on the meridian through the Moon's place. The required correction is then the versed sine of this arc on the Moon's surface, and is additive or subtractive according as it is applied to the second or first limb.

The Vertical Diameters of the Sun and Moon by observation, are the differences of the zenith distances, corrected for refraction and parallax, of the North and South limbs, deficiency of illumination being allowed for in the case of the Moon, (see page xix).

Consequently they are true geocentric diameters, the effect of applying these corrections to the limbs being to reduce their places to those in which they would be seen from the Earth's centre. The Vertical Diameters of Jupiter and Saturn are the diameters measured in the manner stated in p. xix.

The tabular intervals occupied by the transits of diameter, are taken, for the Sun, Moon, and Jupiter, from the Nautical Almanac. Those for Saturn's Ring are the intervals of transit of diameter of that work, multiplied by 2,295, this being the tabular ratio of the projection of its axis major on a parallel of declination to the planet's equatoreal diameter. The tabular vertical diameters of the Sun, Jupiter, and Saturn, are taken immediately from the Nautical Almanac: the Moon's is interpolated with second differences.

The differences between the observed and the tabular values of the intervals of transit and vertical diameters are exhibited for the purpose of obtaining corrections to the latter, if required. In the instance of the Moon the tabular error of the interval of transit is converted into error of diameter in arc by assuming the latter to have the same ratio to the Moon's semidiameter, as the former has to the sidereal time occupied by the transit of the semi-diameter.

III. *Right Ascensions and North Polar Distances of the Centres of the Sun, Moon, and Planets, observed in the year 1842, with the Greenwich Mean Solar Times of transit of centre.*

The concluded Right Ascensions and North Polar Distances of the Sun, Moon, Jupiter, Saturn, and Uranus, contained in pages 242—248, are deduced from their Apparent R.A. and Geocentric N.P.D. in the foregoing part of the work, by applying certain corrections, of which an explanation will now be given.

The only corrections applied to the *Apparent Right Ascensions* are those for reducing observations of limbs to observations of centres. No corrections are required for the planet Uranus, which is observed as a star; and no corrections would be required for observations in which both limbs are taken, if observations of limbs and stars agreed with each other. Discordances have been found between Mr Baldrey's observations of limbs and stars, and also between his observations of first and second limbs, which make it necessary to apply corrections to all his observations of limbs. It is to be understood that both limbs were taken unless one is mentioned under the head of 'Limb observed,' and that in every instance both limbs of Jupiter and Saturn's Ring were taken.

When one Limb of the *Sun* is observed, the R.A. of centre is inferred from the observed R.A. of the Limb, by applying the sidereal time occupied by the transit of the semi-diameter as given in the Nautical Almanac. The corrections for the discordances just mentioned, are determined by the following considerations.

It appears by the comparison in pages 236 and 237 of the tabular and observed intervals occupied by transits of the Sun's diameter, that 88 observations by B give $-0^s.463$ for the mean excess of the former above the latter, 29 observations by C give $+0^s.060$, and 17 by G give $-0^s.006$. Also by comparisons in the same pages, the mean excess of the Tabular above the observed vertical diameter, by 132 measures (excluding the excesses in brackets), is $+0''.58$. The excess inferred from the 46 transits of C and G, supposing them taken at a mean declination of 13° , is $+0''.53$, which is so near the value by the circle measures, that a mixture of C's and G's observations may be presumed to be free from the discordance by which B's observations are affected, and also to give correctly the tabular error of right ascension. Now the mean tabular error of interval of transit of diameter by C's and G's 46 observations is $+0^s.036$, and the mean tabular error of right ascension by the same observations is $-0^s.080$. Whilst 45 observations by B, selected so as to be as near as possible to those of C and G, viz. 11 from Jan. 17 to March 10, 16 from July 14 to Sept. 19, and 18 from Aug. 26 to Oct. 11, give $-0^s.420$ for the mean error of tabular interval of transit of diameter, and $-0^s.192$ for the mean error of tabular right ascension. Let now B's observation of a first limb be x seconds too early, and of a second limb y seconds too late. Then by what is said above, $x + y = 0^s.420 + 0^s.036$, and $\frac{1}{2}(x - y) = -0^s.192 + 0^s.080$. Consequently $x = 0^s.116$ and $y = 0^s.340$. (The corresponding values from the observations of 1840 were $0^s.117$ and

0^s,263. See Introduction of 1840, p. xxiii). In accordance with these results B's observations of the Sun's first limb have been increased by 0^s,12; his observations of the second limb have been diminished by 0^s,34; and the means of observations of both limbs have been diminished by 0^s,11.

The Right Ascension of the *Moon* at the time of transit of centre is deduced from the observed R.A. of the limb by applying the sidereal time occupied by the transit of the semidiameter, taken, first, from the section of Moon-culminating stars in the Nautical Almanac, and then corrected for an error in the Moon's Tabular semidiameter of 2'',31 in defect.

The correction + 2'',31 of the Moon's tabular semidiameter was obtained in the Introduction to the Volume for 1838, (p. lxvi) from observations in 1837 and 1838, and agrees with the result of the meridian observations of both limbs in 1839. The correction in time applied to the tabular interval of transit of semidiameter amounts to 0^s,16 from 0° to 14° of Declination; to 0^s,17 from 14° to 24°, and to 0^s,18 for declinations above 24°.

The mean amount of discordance between B's observations of first and second limbs deduced from the transits of the Moon in 1840 in which both limbs were observed, after correcting for error of the Moon's tabular semidiameter and defect of illumination, is 0^s,25. The amount derived from observations in 1839 was 0^s,30. The latter is adopted in the present Volume, but is not wholly applied to the second limb, each observation by B of the Moon's 1 L. being increased by 0^s,10, and each observation of the second limb diminished by 0^s,20. (See Introduction of 1840, p. xxiii).

The concluded R.A. of the *Planets* are those given immediately by observation, excepting in the observations of Jupiter and Saturn by Mr Baldrey, to which corrections are applied for discordance in the observation of first and second limbs. These corrections are - 0^s,15 for Jupiter, and - 0^s,17 for Saturn, and are deduced from the following considerations.

The mean tabular error of interval of transit of *Jupiter's* diameter by 14 observations taken by C and G from Aug. 2 to Aug. 23, is + 0^s,015, and the mean tabular error of R.A. by the same observations, is + 0^s,209. An equal number of B's observations from July 18 to Sept. 15, give for the former error - 0^s,349, and for the latter + 0^s,059. Since the diameter by C's and G's observations differs very little from the tabular value, which is the result of very accurate micrometer measures, it is presumed that C and G observe limbs correctly, and consequently that the tabular error of R.A. of the planet's centre, deduced from their observations, is correct. The difference between this error and that given by B's observations, viz, 0^s,209 - 0^s,059, or 0^s,15, is owing to B's discordant observations of limbs, and is added with a negative sign to correct for the effect of this discordance on the R.A. of the centre.

The 12 observations of *Saturn* by C and G from Aug. 3 to Aug. 23, give + 0^s,037 for mean error of tabular interval of transit of the diameter of Saturn's Ring, and - 0^s,454 for mean error of tabular R.A. An equal number of B's observations from July 15 to Sept. 12, give for the former error - 0^s,412 and for the latter - 0^s,623. Hence by considerations analogous to those applied to Jupiter, the correction to B's R.A. of Saturn's centre, for discordance in the observations of limbs, is - 0^s,623 + 0,454, or - 0^s,17.

The *North Polar distance of Centre* from observation, is deduced from column 10 of the pages containing the *Calculation of Geocentric N.P.D.*, by correcting the N.P.D. of that column, or, in the instances of the Sun and Moon, the mean of the different values, for error of colatitude and discordance of zenith points. For the Moon there are also applied, the correction 2'',31 for error of semidiameter, small corrections for curvature of path omitted in the calculation of the concluded circle readings, and an additional correction, in every other instance insensible, for the position of the circle. The N.P.D. by the observation is that for the time of passing the middle wire; and as this time does not in general coincide with the meridian passage, a correction is required for the change of the Moon's N.P.D. in the interval. By transits of known stars observed with the Circle and Molyneux, and referred by comparison of clocks to Hardy, the intervals between the meridian passage and the passage across the middle wire, were found for various polar distances, whence, by the intervention of graphical construction, the intervals corresponding to the Moon's N.P.D. at the times of observations were inferred. The variations of N.P.D. in these intervals were then calculated from the variations for 10^m in the hourly ephemeris of the Nautical Almanac, and applied as corrections to the observed N.P.D.

The following are the names and approximate N.P.D. of the stars observed in 1842 for the position of the Circle; together with the calculated excesses of the observed times of transit across the middle wire above the times of meridian transit.

Transits for the position of the Circle in 1842.

Day of Observation 1842.	Star.	Approximate N.P.D.	Interval from meridian to middle wire.	Day of Observation 1842.	Star.	Approximate N.P.D.	Interval from meridian to middle wire.
Feb. 16	α Arietis	67. 17	+ 0,73	July 26	ζ Ursæ Minoris .	11. 43	- 15,95
...	Aldebaran	73. 49	+ 0,34	...	δ Ophiuchi	93. 17	- 0,54
17	α Ceti	86. 32	- 0,68	...	α Ophiuchi	77. 19	- 0,40
18	Aldebaran	73. 49	+ 0,37	30	α Coronæ Bor...	62. 45	- 1,16
...	β Tauri	61. 32	+ 1,32	Aug. 1	Polaris SP.....	1. 32	+ 124,22
...	Sirius.....	106. 30	- 1,92	...	δ Ursæ Minoris .	3. 24	- 55,99
...	Castor	57. 46	+ 1,24	2	γ Aquilæ.....	79. 46	- 1,31
...	Procyon.....	84. 22	- 0,19	...	α Aquilæ.....	81. 33	- 1,23
...	Pollux	61. 36	+ 0,95	...	β Aquilæ.....	83. 59	- 1,25
...	α Aquilæ.....	81. 33	- 0,36				
19	α Pegasi.....	75. 39	- 0,32				
May 1	α Arietis	67. 17	+ 1,36	3	Polaris SP.	1. 32	+ 22,41
2	Aldebaran.....	73. 49	+ 0,82	8	Castor	57. 46	+ 0,44
...	α Arietis	67. 17	+ 1,74	Sept. 21	α Pegasi	75. 39	+ 0,30
28	Procyon.....	84. 22	+ 0,72	Nov. 17	ι Piscium.....	85. 14	- 0,20
...	Pollux.....	61. 36	+ 2,05	...	γ Pegasi.....	75. 42	- 0,10
29	α Arietis.....	67. 17	+ 0,99	20	Arcturus.....	70. 0	- 0,31
June 8	Castor.....	57. 46	+ 1,90	...	α Coronæ Bor...	62. 45	- 0,06
...	Procyon.....	84. 22	+ 0,34	24	γ Aquilæ.....	79. 46	- 0,48
...	Pollux.....	61. 36	+ 1,53	25	γ Aquilæ.....	79. 46	- 0,59
9	Procyon.....	84. 22	+ 0,03	...	α Aquilæ.....	81. 33	- 0,64
...	Pollux.....	61. 36	+ 1,43	...	β Aquilæ.....	83. 59	- 0,77
10	Procyon.....	84. 22	+ 0,11	...	α^2 Capricorni ...	103. 2	- 1,52
...	Pollux.....	61. 36	+ 1,42	...	α Coronæ Bor...	62. 45	- 0,02
16	α Coronæ Bor...	62. 45	+ 1,64	26	γ Pegasi.....	75. 42	- 0,06
...	α Serpentis.....	83. 4	+ 0,12	29	ϵ Bootis.....	62. 15	+ 0,12
20	Antares.....	116. 5	- 2,49	30	γ Aquilæ.....	79. 46	- 0,32
...	α Herculis.....	75. 25	+ 0,92	...	α^2 Capricorni ...	103. 2	- 1,26
...	α Ophiuchi.....	77. 19	+ 0,89	...	γ Pegasi.....	75. 42	- 0,15
...	μ^1 Sagittarii...	111. 6	- 1,94	...	β Ceti.....	108. 51	- 1,62
...	ζ Aquilæ.....	76. 22	+ 0,89	Dec. 13	γ Pegasi.....	75. 42	- 0,39
21	α Serpentis.....	83. 4	+ 0,31	14	α Aquarii.....	91. 5	- 0,63
...	β^1 Scorpil.....	109. 22	- 2,00	...	γ^1 Eridani.....	103. 58	- 1,12
...	δ Ophiuchi.....	93. 17	- 0,57				
...	Antares.....	116. 5	- 2,67				

The circle was taken from the wall on June 22, and on replacing it the screws for the adjustment of the axis were turned to bring it nearer to the plane of the meridian. It being afterwards discovered that the screws had been turned too much, a second adjustment was made on Aug. 3, before the transit of Polaris S.P. on that day. The preceding observations are consequently divided into three groups, and the following are mean results derived from the first and third groups by the method of graphic construction above-mentioned, and results calculated from the observations on Aug. 1 and 2, by first finding the level and meridian errors on the supposition that the collimation error was nothing. The latter method was employed for the middle group, because the observations it contains were not sufficiently numerous for making use of graphical construction.

Intervals from meridian transit to transit across middle wire.

North Polar Distance.	Interval from Jan. 1 to June 22.	Interval from June 22 to Aug. 3.	Interval from Aug. 3 to Dec. 31.
60	+ 1,67	- 2,67	+ 0,29
70	+ 0,90	- 1,97	- 0,10
80	+ 0,18	- 1,34	- 0,43
90	- 0,57	- 0,77	- 0,78
100	- 1,31	- 0,22	- 1,14
110	- 2,09	+ 0,43	- 1,55
120	- 2,90	+ 1,13	- 1,95

The *Greenwich Mean Solar Time* of transit of Centre, corresponding to the Right Ascension of centre from observation, is found by adding to the equivalent, in solar time, of the sidereal time, the next preceding mean time of transit of the first point of Aries, diminished by $23^s,48$, as the Cambridge Observatory is $23^s,54$ east of the Greenwich Observatory. For greater expedition the *seconds* of the Greenwich Mean Solar Time are found by adding together $36^s,52$, ($= 60^s - 23^s,48$), the seconds of the mean time of transit of the first point of Aries, and the seconds of the solar equivalents, and the hours and minutes are extracted from the approximate mean times of meridian passage in the Nautical Almanac.

When a Circle observation is not accompanied by a Transit observation, the Greenwich Mean Solar Time is calculated from the R.A. of centre at meridian transit in the Nautical Almanac, corrected for the difference of longitude of the Greenwich and Cambridge Observatories by subtracting $0.00654 \times$ the horary variation of R.A. given in that work.

The *seconds of tabular R.A. and N.P.D.*, from which the *Errors of Tables* are deduced, have been obtained for the Sun and Planets, by subtracting from the R.A. and N.P.D. at meridian transit in the Nautical Almanac, $0.00654 \times$ the horary variations in R.A. and N.P.D.

The seconds of tabular R.A. of the Moon's centre have been derived from the R.A. of the Limb in the Section of Moon-culminating stars in the Nautical Almanac, by applying the sidereal time occupied by the transit of the semidiameter as there given, and subtracting $0.00654 \times$ the variation of R.A. for 1^h of longitude. The seconds of tabular N.P.D. of centre have also been obtained from the Section of Moon-culminating stars, by adding $0.00654 \times$ the variation of declination in 1^h of longitude.

Following the column of errors of the tables of the Moon in N.P.D. are two others, the first of which exhibits the effect on the errors in N.P.D. of increasing the parallax one-thousandth part; and the other, the effect of supposing the Earth spherical with the same equatoreal radius. The last mentioned column is formed by taking the parallax computed, as before stated, supposing the ratio of the axes to be that of 297 to 298, from the parallax separately computed, supposing the Earth to be spherical, and gives the means of readily altering that ratio if required.

The *Determination of the Position of the Ecliptic and of the mean error of the assumed Right Ascensions of the Fundamental Stars from the Circle Observations of the Sun in 1842* in pages 249 and 250, has been inserted to give the means of inferring absolute errors of the Solar, Lunar, and Planetary Tables from the observations of this Volume. The calculations have been made on the following principles.

The true longitude λ , and true North Polar Distance Δ , of the Sun's centre, and the true obliquity I , at any instant, are related to each other by the equation,

$$\cos \Delta = \sin \lambda \sin I,$$

and the tabular longitude $\lambda + \delta\lambda$, the tabular North Polar Distance $\Delta + \delta\Delta$, and the assumed obliquity $I + \delta I$, in the Nautical Almanac, for the same instant, by the equation,

$$\cos (\Delta + \delta\Delta) = \sin (\lambda + \delta\lambda) \sin (I + \delta I).$$

Hence, neglecting powers of the errors $\delta\lambda$, $\delta\Delta$, δI , above the first,

$$\delta\Delta + \operatorname{cosec} \Delta \cos \lambda \sin I \delta\lambda + \operatorname{cosec} \Delta \sin \lambda \cos I \delta I = 0 \dots\dots\dots (A).$$

Now it is assumed that the variations of λ and I in the course of a year are in accordance with the theoretical calculations, and consequently that their values, as given in the Nautical Almanac, are affected, if by any, by constant errors, which it is proposed to find.

The actual errors of the Solar Tables in N.P.D. cannot be immediately derived from the errors in the columns of pages 242—244, because, though mere errors of observation may be supposed eliminated in the mean result from a large number of observations, there may still remain uncorrected instrumental errors and errors of reduction. Representing

therefore by a any error in N.P.D. taken from those columns, and by p the excess of the observed above the true N.P.D., we shall have,

$$\delta\Delta = (\text{Tabular N.P.D.} - \text{observed N.P.D.}) + (\text{observed N.P.D.} - \text{true N.P.D.}) = a + p;$$

and as we are ignorant of the causes to which p may be owing, it is assumed to be constant within the limits of the tropics. The formula (1) in page 249 is obtained by putting m for $\sin I\delta\lambda$, n for $\cos I\delta I$, and $a+p$ for $\delta\Delta$ in equation (A).

Instead of forming a separate equation from this formula for every different value of a , the whole number of observations is divided into twelve groups, the mean of the values of a in each group is considered to correspond to the day nearest the numerical mean of the days of observation in the group, and λ and Δ are taken for the mean noon of the mean day from the Nautical Almanac. In this manner twelve different equations were formed. The rest of the calculation for finding m , n , and p , requires no explanation additional to that given in p. 250.

Let δR represent the mean excess for the year of the Sun's tabular R.A. above the true; let β be the mean error of the tables in R.A. as derived from the columns of pages 242—244; and suppose the mean excess of the assumed R.A. of the fundamental stars above the true to be q . Then,

$$\delta R = (\text{Tabular R.A.} - \text{observed R.A.}) + (\text{observed R.A.} - \text{true R.A.}) = \beta + q;$$

and as δR is known from the equation $m = \sin I\delta\lambda$, q is also determined.

The *Comparisons of Clocks and Chronometers* in pages 252 and 253 are used in the reduction of the equatoreal observations that follow. When required for occultations of fixed stars by the Moon, the comparisons of Graham with Hardy were generally made for greater accuracy with a solar chronometer by coincidence of beats.

EQUATOREAL OBSERVATIONS.

The observations made with the Northumberland and Five-feet Equatoreals are either measures of small differences of Right Ascension and North Polar Distance, or measures of apparent Diameters, or occultations of fixed stars by the Moon, and consequently cannot be sensibly affected by small deviations of the line of collimation, and of the declination and polar axes from accurate adjustment. Since the determinations of the collimation error and errors of position of the declination and polar axes of the Northumberland Equatoreal recorded in the Introductions to the Volumes for 1838 and 1839, new determinations have been made by observations in 1841 and 1842.

The following observations were taken in 1841 for determining the position of the Polar Axis of the Northumberland Equatoreal. The star was Regulus. Its apparent R.A. = $9^{\text{h}}.59^{\text{m}}.56^{\text{s}}.7$, and apparent N.P.D. = $77^{\circ}.15'.7$.

Day of Observation 1841.	N ^o . of Series.	Time by Chronometer X.	Sidereal Time.	Hour angle West.	Reading of lower Micrometer.	Reading of Sector Microscope.	Increase of Micrometer Reading in Arc.	Increase due to Refraction.	Increase due to Position of Axis.
March 15	1	<i>h. m. s.</i> 10. 16. 0	<i>h. m. s.</i> 10. 16. 17.1	<i>h. m. s.</i> 0. 16. 20	<i>r.</i> 9,043	<i>d. r.</i> 17. 10,557	"	"	"
	2	11. 42. 23	11. 42. 39.8	1. 42. 43	10,341	17. 10,482	+ 22.81	+ 5.08	+ 17.73
	3	12. 45. 34	12. 45. 50.6	2. 45. 54	11,558	17. 10,434	+ 43.98	+ 14.91	+ 29.07
	4	13. 45. 46	13. 46. 2.4	3. 46. 6	13,360	17. 10,339	+ 75.56	+ 32.78	+ 42.78
March 16	5	6. 21. 1	6. 21. 14.2	20. 21. 17	10,916	17. 10,856	+ 28.85	+ 28.24	+ 0.61

The times by X were converted into sidereal times by means of the following comparisons of X with Hardy:

$$\begin{array}{ccc} \text{March 15.} & \text{March 15.} & \text{March 16.} \\ 9. 50. 39.7 \text{ X} = 9. 49. 59.0 \text{ H} & 14. 8. 25.0 \text{ X} = 14. 7. 43.1 \text{ H} & 6. 32. 55.1 \text{ X} = 6. 32. 9.0 \text{ H.} \end{array}$$

Hardy was slow $57^{\text{s}}.12$ at 0^{h} March 15, and $58^{\text{s}}.86$ at 0^{h} March 16.

The observations were made by bisecting the star with the same micrometer wire at different intervals, the Telescope remaining clamped in declination. As it appeared that from some cause, probably flexure of the Telescope Tube, the readings of the Sector Microscope varied, it was thought right to reduce the micrometer readings to what they would have been if the readings of the Sector microscope had all been the same as the first. The proportion of one revolution of the double-wire micrometer to one revolution of the Sector microscope-micrometer being 17 to 10 very nearly, the micrometer readings become by these corrections, 9",043, 10",385, 11",630, 13",488 and 10",740. The several excesses of these above the first, converted into arc by multiplying by 17",00, are the numbers of the last column but two.

The refractions were calculated by the formula, Vertical Refraction = refraction at 45° of Zenith distance $\times \tan$. of Zen. dist.; and the Barometer and Thermometer being read off at each observation, an exact value of the refraction for Zen. dist. of 45° was obtained. The increments of the readings of the *lower* micrometer due to refraction being subtracted from the observed increments, the remainders (placed in the last column) must be due to the position of the polar axis, supposing the parts of the instrument to be perfectly rigid. From the hour angles and the data in the last column, the position of the polar axis was calculated by the following formulæ, which are the same that are employed in the Introduction to the Volume for 1839, p. xxix.

Let θ , θ' , θ'' represent the first of the Hour angles above, and any two of the others, in order of magnitude, and $-a$, $-\beta$, the numbers in the last column corresponding to the latter two hour angles. Then if x = the deviation of the instrumental pole to the *South* of the pole of the heavens, and y = its deviation to the *West* of the meridian, the required formulæ are,

$$\begin{aligned} 2A &= \cos \frac{\theta'' + \theta}{2} \operatorname{cosec} \frac{\theta'' - \theta'}{2} \operatorname{cosec} \frac{\theta' - \theta}{2} & x &= Aa - B\beta \\ 2B &= \cos \frac{\theta' + \theta}{2} \operatorname{cosec} \frac{\theta'' - \theta}{2} \operatorname{cosec} \frac{\theta'' - \theta'}{2} & y &= Aa \tan \frac{\theta'' + \theta}{2} - B\beta \tan \frac{\theta' + \theta}{2}. \end{aligned}$$

By using Nos. 1, 2, and 4, it will be found that $x = -22'',38$ and $y = +43'',00$, and by using Nos. 1, 4, and 5, that $x = -53'',71$ and $y = +24'',70$. The discordance in these results seems to shew that the supposition of the perfect rigidity of the Telescope and Polar Frame, which it is necessary to make in this method of calculation, is not strictly true.

The subjoined Table contains observations for the collimation error and error of position of the declination axis of the Northumberland Equatoreal, with the calculation of these two errors. Other observations were made on the same days, which, as they gave nearly the same results, it was thought unnecessary to insert.

Day of Observation 1841.	Star.	Position of Illuminated Side of Telescope.	Time of Transit by U.	Difference of Times.	Hour Circle Reading.	Difference of Hour Circle Readings.	Collimation Error in Time.	Correction for Collimation Error.	Error of Position of Declination Axis in Time.
March 11	Anonymous (Decl. = 0°)	East West	$\begin{smallmatrix} h. & m. & s. \\ 11. & 0. & 15,3 \\ 11. & 18. & 24,8 \end{smallmatrix}$	$\begin{smallmatrix} m. & s. \\ 18. & 9,5 \end{smallmatrix}$	$\begin{smallmatrix} h. & m. & s. \\ 0. & 5. & 0 \\ 12. & 23. & 43 \end{smallmatrix}$	$\begin{smallmatrix} m. & s. \\ 18. & 43,0 \end{smallmatrix}$	16,75		
March 12	δ Ursæ Majoris (Decl. = 70°. 31')	East West	$\begin{smallmatrix} 9. & 14. & 41,70 \\ 9. & 29. & 48,50 \end{smallmatrix}$	15. 6,80	$\begin{smallmatrix} 21. & 14. & 24 \\ 9. & 30. & 40 \end{smallmatrix}$	16. 16,0		- 100,4	5,52
Oct. 19	α Aquarii (Decl. = - 1°. 5')	West East	$\begin{smallmatrix} 23. & 46. & 12,90 \\ 0. & 1. & 53,90 \end{smallmatrix}$	15. 41,00	$\begin{smallmatrix} 21. & 43. & 29 \\ 9. & 28. & 22 \end{smallmatrix}$	15. 7,0	17,00		
Oct. 19	α Cephei (Decl. = 61°. 55')	East West	$\begin{smallmatrix} 0. & 39. & 34,20 \\ 0. & 49. & 12,90 \end{smallmatrix}$	9. 38,70	$\begin{smallmatrix} 8. & 8. & 2 \\ 19. & 57. & 28 \end{smallmatrix}$	10. 34,0		- 72,6	4,63
1842 June 29	δ Ophiuchi (Decl. = - 3°. 17')	East West	$\begin{smallmatrix} 16. & 42. & 18,80 \\ 16. & 58. & 20,50 \end{smallmatrix}$	16. 1,70	$\begin{smallmatrix} 3. & 55. & 18,00 \\ 15. & 39. & 42,95 \end{smallmatrix}$	16. 35,05	16,67		

On March 11 the transits were taken across one of the micrometer wires placed so that the micrometer reading was 10",000. On the other days the times by U are the means of transits across the two wires placed on opposite sides of the above position, each at the distance of 5'. The Hour Circle Readings in 1841 were obtained by verniers which read off to seconds. On March 11 and 12 the fixed index was read off, the Hour Circle being clamped to the Polar Frame: on Oct. 19, the index which moves with the Polar Frame was read off, the Hour Circle being stationary. On June 29, 1842, the Hour Circle was read by a Microscope-micrometer, which at the beginning of that year was attached to the Hour Circle Clamp, and moves with the Polar Frame.

The error of collimation (in time) is simply the half of the difference between the intervals in the fifth and seventh columns, no corrections being applied for the small declinations of α Aquarii and δ Ophiuchi. The error of position of the declination axis (in time) is the difference of the intervals in the fifth and seventh

columns, freed first from collimation error, and then multiplied by half the cotangent of the star's declination. Since when the Telescope looks southward and its illuminated side is first East then West, the interval between the Transits is *less* than the difference of Hour Circle Readings, it follows that the line of collimation points too much *westward*, when the illumination is *eastward*. Also since in the same circumstances the interval between the transits, after correcting for collimation error, is *greater* than the difference of Hour Circle Readings, the true line of collimation for north declinations points too much *eastward*, when the illumination is on the *east* side of the Telescope.

From the foregoing discussion it follows that the error of collimation and errors of position of the declination and polar axes are not of such amounts as sensibly to affect the observations of this Volume. The comparison of the results with those obtained in 1838 and 1839 prove the general stability of the instrument and permanence of the adjustments, none of the adjusting screws having been moved in the intervening period. In the Spring of 1842 an attempt was made to diminish the error of collimation by thrusting wedges between the Telescope Tube and the iron frame which clasps it, but the result of the observations for collimation error on June 29 of that year shews that no sensible effect was produced.

The following are observations made in 1842 for the collimation error, and error of position of the declination axis of the 5-feet equatoreal.

Day of Observation.	Star.	Position of graduated side of Declination circle.	Time of transit by Graham.	Difference of times.	Hour Circle Reading.	Difference of Hour Circle readings.	Collimation Error in time.	Correction for Collimation Error.	Error of position of Declination axis in time.
1842.			<i>h. m. s.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>s.</i>	<i>s.</i>	<i>s.</i>
Aug. 20	1 Aquarii (Decl. = - 0°. 4')	West East	20. 25. 2,16 20. 41. 2,36	16. 0,20	0. 8. 52,51* 11. 52. 34,80	16. 17,71	8,75		
Aug. 22	κ ¹ Piscium (Decl. = + 0°. 24')	East West	23. 18. 17,40 23. 44. 44,06	26. 26,66	12. 3. 11,84 23. 36. 58,75	26. 13,09	6,79		
Aug. 23	δ Ophiuchi (Decl. = - 3°. 17')	West East West	16. 36. 37,62 16. 53. 37,40 17. 4. 14,90	16. 59,78 10. 37,50	23. 32. 25,53 11. 15. 12,14 23. 4. 48,19	17. 13,39 10. 23,95	6,80 6,78		
Aug. 23	ζ Serpentis (Decl. = - 3°. 40')	West East West	17. 46. 59,08 18. 0. 21,50 18. 11. 11,74	13. 22,42 10. 50,24	24. 8. 3,31 11. 54. 37,68 23. 43. 50,76	13. 25,63 10. 46,92	1,60 1,66		
Aug. 23	A.S.C. 2843 (Decl. = + 66°. 56')	West East West	0. 1. 9,34 0. 30. 15,16 0. 53. 38,80†	29. 5,82 23. 23,64	23. 42. 11,38 11. 12. 52,66 22. 49. 42,72	29. 18,72 23. 9,94		+ 8,32 - 8,32	2,29 2,69

The times of transit are the means of transits over the five wires, and the hour circle readings are the means of readings of both microscopes.

* The minutes were written down 9, and are altered conjecturally.

† Transit over wires II. III. and IV.

The calculations of the two errors were conducted in the manner already described for the Northumberland equatoreal. The collimation error assumed in the calculation of Correction for Collimation Error Aug. 23, is 1^s.63. Between the observations of Aug. 20 and Aug. 22, I moved the wire-frame to make an equatoreal star pass exactly along the fixed wire, which had not been the case before. Possibly by this adjustment the collimation error was altered: this, however, is doubtful, as the observations on Aug. 20 were not satisfactory. Between the observations of δ Ophiuchi and ζ Serpentis, Aug. 23, I corrected the collimation error in great part by means of the mark on Grantchester tower.

Since, the graduation being first West then East, the interval between the transits is *less* than the difference of hour-circle readings, the telescope, when it looks southward, points too much to the *West* when the graduation is *West*. And since, in the same case, the interval between the transits corrected for collimation error, is *less* than the difference of hour-circle readings, the plane in which the true line of collimation moves, deviates towards the West for north declinations, when the graduation is West and the telescope looks southward.

1842. Aug. 17, I observed as follows for determining the error of position of the polar axis of the five-feet equatoreal. The star was α Lyrae, and its apparent R.A. was $18^h.31^m.36^s.3$.

Time by Graham.	Sidereal Time.	Hour angle West.	Reading of Lower Micrometer.	Increase of Micrometer Reading in arc.	Barometer.	Thermometer.	Increase of Micrometer reading due to refraction.	Increase due to position of axis.
<i>h. m. s.</i> 15.55.13,0	<i>h. m. s.</i> 15.53.47,8	<i>h. m. s.</i> -2.37.49	<i>r</i> 10,524	"	<i>m.</i> 30,018	<i>°</i> 74,0	"	"
18.55.48,5	18.54.22,2	+0.22.46	9,700	-27,52	30,009	71,3	-7,11	-20,41
22.0.29,7	21.59.2,2	+3.27.26	9,290	-41,21	30,000	68,5	+7,92	-49,13

The times by Graham were converted into sidereal times by means of the following comparisons made on Aug. 17.

$$\begin{array}{l|l} 15.57.9,6 \text{ X} = 15.58.9,0 \text{ G} & 22.3.20,0 \text{ X} = 22.4.22,0 \text{ G} \\ 15.59.45,0 \text{ X} = 15.58.26,0 \text{ H} & 22.12.5,0 \text{ X} = 22.10.46,0 \text{ H} \end{array}$$

Hardy was slow $53^s.2$ at the first comparisons, and $53^s.5$ at the second.

The observations were made in the manner already described for the Northumberland Equatoreal, and the calculation of the position of the axis was conducted by the same formulæ. By putting $\alpha = +20''.41$, and $\beta = +49''.13$, it will be found that $x = +16''.4$, and $y = -32''.8$. The instrumental pole consequently deviates to the *South* and to the *East* of the pole of the heavens.

I. *Differences of R.A. and N.P.D. of Encke's Comet and adjacent stars observed with the Northumberland and Five-feet Equatoreals; and Calculation of the Geocentric R.A. and N.P.D. of the Comet* in pages 256—277.

The observations of differences of *Right Ascension* with the *Northumberland Equatoreal* (pages 256—261) were either differences of transits, the instrument being fixed, or were made by means of the clock-movement of the hour circle. The times by the chronometer are the times of disappearance, or of bisection, of the comet or star at a straight boundary across the field, placed by the position circle perpendicular to the equatoreal direction. These are converted into sidereal times by means of the comparisons in page 252. The hour circle is read off by a microscope-micrometer, which at the beginning of 1842 was attached to the polar frame, and may be moved with it relatively to the hour circle either by hand, or when the hour circle is clamped to the polar frame, by a tangent-screw. The minutes and seconds of the reading correspond to the division bisected by the cross wires of the microscope, and the interval between the bisected division and the zero of the microscope is measured by integral revolutions of the micrometer indicated by the comb, and parts of a revolution taken from the micrometer-head. It is plain that the difference of the hour circle readings for two objects, when cleared of refraction and rate of the hour circle in the manner about to be explained, is the difference of R.A. of the objects. The value of one revolution of the hour circle micrometer was determined as follows.

1842. June 29, divisions of the hour circle 1^m apart were bisected at different parts of the graduation by the cross wires of the micrometer. Temperature, $66^{\circ}.0$.

Preceding division	.....	$\overset{r}{0},885$	.....	$\overset{r}{0},145$	.....	$\overset{r}{0},672$	.....	$\overset{r}{0},465$	.....	$\overset{r}{0},265$	.....	$\overset{r}{0},078$	.....	$\overset{r}{0},012$
Following division	.....	$\overset{r}{1},038$	.....	$\overset{r}{0},322$	.....	$\overset{r}{0},835$	.....	$\overset{r}{0},675$	.....	$\overset{r}{0},430$	.....	$\overset{r}{0},295$	.....	$\overset{r}{0},225$
Excess of latter	.....	$\overset{r}{0},153$	.....	$\overset{r}{0},177$	.....	$\overset{r}{0},163$	.....	$\overset{r}{0},210$	.....	$\overset{r}{0},165$	.....	$\overset{r}{0},217$	.....	$\overset{r}{0},213$

The mean of the excesses is $0^r.185$; and as $1^r = 4^s$ nearly, it follows that $15^r.185 = 60^s$. Hence $1^r = 3^s.951$.

The 'difference of R.A. uncorrected' is the algebraic excess of the time of transit, or hour circle reading, for the comet, above that for the star. As often as possible the comet observation is compared with a preceding and a following star observation.

The 'approximate hour angle' is the difference to the nearest second between the apparent R.A. of the object and the sidereal time of observation, the R.A. of the comet being deduced

from the known R.A. of the star and the approximate difference of their R.A. given by the observation. The 'approximate N.P.D.' is obtained for the star from its known N.P.D., and for the comet from the star's N.P.D. and the difference of their N.P.D. observed at another epoch on the same day, allowance being made for change of the comet's N.P.D. in the interval by means of the Ephemeris used in a subsequent part of the calculations.

The *Refractions* in the *first* column of the right-hand pages were calculated from the approximate hour-angles and N.P.D. on the opposite pages, with nearly the same degree of accuracy as for observations with the Mural Circle. The *true* zenith distance and angle of position of the object was first calculated from these data, the approximate apparent zenith distance, as affected by refraction, was next obtained by means of a Table given in the Additions to this Introduction, and the vertical refraction was then calculated by Bessel's formula, regard being paid to the Barometer and Thermometer readings at the time. The refraction in R.A. is $\frac{1}{15} \times \text{vertical refraction} \times \text{cosec N.P.D.} \times \sin \text{ of angle of position.}$

The corrections for *rate of the Hour Circle* were obtained as follows. The uncorrected differences of R.A. were first corrected for difference of refraction. The difference of R.A. given by comparison with a following observation of the star was then subtracted from the difference given by a preceding observation. The remainder is the *gain* of the Hour Circle Reading in the interval between the two observations of the star, from whatever cause it may arise, and may be supposed to include with the rate of the hour circle the effect of any other instrumental inequality varying proportionally to the time. The gain between every two consecutive observations of the star being thus found, and the rate being supposed uniform in each such interval, the whole gain from the first star observation to each subsequent observation of the group is calculated and applied with contrary sign to correct for hour circle rate. If a comet observation is not preceded or not followed by a star observation, the nearest rate is extended to the time of observation of the comet.

The corrections for *Parallax* in R.A. were calculated from the hour angles and approximate N.P.D. of the comet on the left-hand pages, by the formula in p. lxxxvii of the Introduction to Vol. xi, the log. distance being interpolated from an Ephemeris by Professor Encke, which I received from the Astronomer Royal a short time before the comet's appearance in 1842, and which is also contained in N^o. 19 of Vol. v. of the Monthly Notices of the Royal Astronomical Society.

The 'assumed R.A. of the stars' were calculated in the usual manner from their mean R.A. The following are the assumed mean R.A. and N.P.D. of all the stars used in the observations of Encke's comet, as determined by Transit and Circle Observations in 1842, 1843 and 1844.

Designation of Star.	Mean R.A. Jan. 1, 1842.			Mean N.P.D. Jan. 1, 1842.		
	<i>h.</i>	<i>m.</i>	<i>s.</i>	<i>°</i>	<i>'</i>	<i>"</i>
* (I)	0	38	41,35	78	20	5,08
58 Piscium	0	38	47,35	78	53	20,23
Piazzi O. 208	0	43	19,05	78	4	30,82
A.S.C. 93.	0	47	52,30	76	54	17,17
η Piscium*	1	23	2,25	75	28	14,60
103 Piscium	1	30	45,02	74	10	42,50
105 Piscium	1	31	10,10	74	23	52,04
4 Arietis	1	39	37,41	73	50	0,58
ι Arietis	1	48	43,81	72	57	23,00
Λ Arietis	1	55	3,41	72	30	31,65
Piazzi I. 257.	1	59	6,33	72	43	34,30
θ_1 Arietis*	2	9	20,89	70	49	57,84
ψ Arietis*	2	22	9,09	72	59	53,58
ω Arietis	2	24	15,56	75	40	6,49
* (II)	2	31	24,27	73	57	19,08

* For the N.P.D. of the first two of these stars and the R.A. of the other, the observations of 1840 were also used.

The 'concluded R.A. of the comet' is the algebraic sum of the assumed R.A. of the star and the corrected difference of R.A. The 'Greenwich mean Solar Times' correspond to the sidereal times of observation of the comet, and the 'Interpolated R.A. of comet' were computed to fourth differences from Encke's Ephemeris, allowing $53^m.35^s.5$ for the difference of the meridians of Berlin and Greenwich. The 'Error of Interpolated R.A.' is the algebraic excess of the interpolated above the concluded R.A. of the comet.

Respecting the *Observations of N.P.D.* with the Northumberland Equatoreal, and *Calculation of Geocentric N.P.D.* in pages 262—265, little need be said after the explanations already given. The value of one interval between the Sector divisions used in converting the differences of the Sector readings into arc, is that obtained in page xxxv of the Introduction to Vol. XII. The value of one revolution of the Sector microscope-micrometer is derived from the following measures taken March 7, 1842.

Micrometer reading, division 17 bisected	$22,981$	$22,993$	$22,991$
Micrometer reading, division 18 bisected	$2,953$	$2,962$	$2,952$
Differences	$20,028$	$20,031$	$20,039$

The mean of the differences is $20^s.033$, which, since $1^d = 204^s.258$, gives $1^r = 10^s.196$.

The 'approximate Hour Angle' for the comet is deduced from that for the star by adding the difference of R.A. as observed at another epoch on the same day, and corrected for the change of the comet's R.A. in the interval. The 'approximate N.P.D.' for the comet is the apparent N.P.D. deduced from the Ephemeris by allowing for Parallax and the error of the Ephemeris, the latter quantity being obtained from observations with the Five-feet Equatoreal previously reduced, or from an approximate reduction of the observations with the Northumberland Equatoreal.

The 'Refraction in N.P.D.' on the right-hand pages is the vertical refraction, calculated in the manner already stated, multiplied by the cosine of the angle of position; and the 'Apparent Difference of N.P.D.', when the comet observation is preceded and followed by a star observation in the same group, is the mean of results given by comparison with both. The 'Interpolated N.P.D.' were computed to fourth differences from Encke's Ephemeris. The rest of the computations is precisely analogous to that for the observations in R.A., and needs no farther explanation.

I must here state that the results of the observations in N.P.D. with the Northumberland Equatoreal are of little value on account of their being affected with an error, the cause of which was not discovered till long after the observations were taken. It was found that the clamp did not grasp the declination-rod closely when screwed tight up, and was consequently liable to slip on moving the Telescope. The effect on the observations is most apparent in those where the difference of N.P.D. is considerable. Fortunately the observations in N.P.D. with the Five-feet Equatoreal on the same days are worthy of confidence. I consider, however, the observations in R.A. with the Northumberland Equatoreal to be on the whole superior to those of the Five-feet Equatoreal.

The observations of differences of *Right Ascension with the Five-feet Equatoreal* in pages 266—271, were made and reduced in the same manner as the like observations with the other Equatoreal, excepting that it was thought right to correct the sidereal times of observation to what they would have been at the middle wire. The part of the field where the transit was taken is mentioned in the notes, and the correction is its equatoreal interval from the middle wire multiplied by the cosecant of the approximate N.P.D. of the object. The following are the adopted equatoreal intervals. (See Introduction to Vol. XII. p. xxxviii.)

Entrance.	Wire I.	II.	IV.	V.	Departure.
$-48^s.58$	$-20^s.98$	$-10^s.33$	$+10^s.55$	$+21^s.11$	$+69^s.74$

No account is taken of the change of the comet's R.A. in the interval from the transit to the middle wire, because the 'Interpolated R.A. of comet' (right-hand page) is calculated for the sidereal time of observation.

The observations of *Differences of N.P.D. with the Five-feet Equatoreal* in pages 272—277, were made with the Instrument fixed during each set, the Telescope moving only in N.P.D. The part of the field at which the bisection was made is stated in the notes, and the times of bisection by the clock and the corresponding sidereal times, which in general are the same as for the R.A. observations, are put in the *fourth* and *fifth* columns. In the instances in which the difference of N.P.D. was measured by the Declination Circle, the pointer reading is put in the *sixth* column, the microscope A or B is mentioned in the *seventh*, and the microscope readings are in the *eighth*. When the difference of N.P.D. was not too large it was measured by one of the micrometer wires. The micrometer used is also mentioned in the seventh column, and the micrometer reading is put in the next column. It is to be understood that U has its micrometer head upwards when the Telescope looks southward and the graduation of the Declination Circle is West: also that when no micrometer is mentioned, the object was bisected by the fixed wire.

The corrections for errors of division in the *ninth* column, were taken either from the Table in pages lvi—lxi of the Introduction to the observations of 1835, or from the following Table, which was formed precisely according to the method described in page lv of that Introduction, the same double-microscope having been employed in spanning the intervals between the divisions.

Division.	Correction to Division.	Division.	Correction to Division.	Division.	Correction to Division.	Division.	Correction to Division.	Division.	Correction to Division.	Division.	Correction to Division.
251. 15	24,2	71. 15	89,6	253. 50	24,7	73. 50	85,7	256. 25	28,1	76. 25	79,1
20	24,4	20	88,2	55	23,7	55	85,3	30	30,5	30	82,2
25	25,8	25	88,8	254. 0	23,1	74. 0	86,2	35	29,3	35	79,1
30	28,2	30	89,2	5	21,2	5	83,5	40	29,9	40	79,5
35	27,2	35	90,5	10	20,8	10	84,3	45	29,8	45	80,7
40	27,1	40	90,0	15	21,6	15	82,2	50	29,7	50	81,5
45	28,5	45	91,6	20	22,5	20	81,1	55	28,2	55	79,1
50	27,8	50	91,0	25	23,3	25	79,8	257. 0	28,6	77. 0	81,1
55	26,4	55	90,5	30	24,2	30	79,5	5	27,4	5	79,0
252. 0	28,1	72. 0	89,8	35	24,1	35	79,3	10	29,4	10	82,3
5	23,6	5	89,4	40	24,1	40	80,3	15	29,4	15	80,7
10	25,0	10	89,4	45	25,2	45	81,4	20	31,5	20	80,9
15	24,1	15	90,0	50	25,7	50	84,6	25	29,4	25	80,3
20	23,9	20	88,4	55	25,7	55	85,0	30	30,2	30	81,7
25	24,3	25	87,2	255. 0	26,9	75. 0	84,3	35	29,7	35	78,7
30	26,1	30	88,1	5	25,7	5	84,5	40	30,1	40	79,2
35	23,8	35	88,1	10	24,4	10	84,3	45	31,1	45	79,4
40	24,6	40	87,7	15	25,1	15	81,4	50	30,1	50	80,4
45	24,7	45	86,9	20	24,2	20	83,0	55	29,8	55	76,9
50	23,7	50	87,3	25	23,5	25	81,4	258. 0	30,9	78. 0	78,4
55	24,3	55	86,6	30	23,8	30	83,5	5	30,8	5	77,8
253. 0	25,8	73. 0	88,6	35	23,3	35	81,5	10	29,8	10	77,3
5	25,3	5	87,5	40	23,4	40	82,9	15	29,0	15	77,4
10	25,6	10	87,8	45	25,2	45	81,2	20	31,9	20	77,5
15	24,7	15	86,9	50	23,3	50	82,1	25	33,0	25	76,2
20	23,7	20	88,6	55	24,9	55	82,4	30	35,4	30	76,8
25	24,7	25	88,8	256. 0	25,4	76. 0	84,6	35	34,0	35	75,9
30	23,5	30	90,4	5	26,5	5	82,5	40	33,9	40	76,3
35	24,1	35	88,1	10	26,1	10	83,0	258. 45	33,0	78. 45	78,3
40	24,4	40	87,9	15	28,1	15	83,4				
253. 45	26,1	73. 45	85,7	256. 20	30,2	76. 20	81,4				

The corrections for Runs in the *tenth* column were calculated according to the rule given in page xv. The adopted runs for arcs of 5' were found as follows.

1842. Aug. 24. 1^h, the Runs of each microscope were taken at different parts of the circle to eliminate the effect of imperfect graduation. The Temperature was at 71° 0.

For Runs of Microscope A.

Preceding division	60,5	39,0	60,1	61,0	61,7
Following division	64,9	42,5	65,5	65,1	66,0
Excess of latter	+4,4	+3,5	+5,4	+4,1	4,3

For Runs of Microscope B.

Preceding division	15,5	49,5	45,2	47,6	13,1	48,6
Following division	16,9	46,9	41,9	48,9	13,4	48,4
Excess of latter	+1,4	-2,6	-3,3	+1,3	+0,3	-0,2

The mean of the Runs of *A* = + 4'',3, and the mean of the Runs of *B* = - 0'',5. These differ little from values obtained at midnight of Nov. 4, 1839.

The concluded reading of the Declination Circle in the *eleventh* column is the mean of the microscope readings corrected for errors of division and for Runs.

The apparent excess of the N.P.D. of the comet above the N.P.D. of the star in the *twelfth* column, when measured by the declination circle, is the algebraic excess of the concluded reading for the comet above that for the star, the circle readings increasing with the N.P.D. When a micrometer is used, the excess of N.P.D. of the comet is the difference of micrometer readings for bisection and for coincidence with the fixed wire, converted into arc by multiplying by 33'',400, and is positive or negative according as the lower or upper micrometer was used, the star being in every instance bisected by the micrometer wire, and the micrometer readings increasing towards the micrometer heads.

The adopted value of one revolution of the micrometers is that obtained in 1836. (See page lx of Vol. ix.) The readings of the micrometers for coincidence with the fixed wire were determined as follows.

1842. Aug. 24. 0^h, I took the coincidences at the five vertical wires. The graduated face of the Declination Circle was West, and the Telescope was looking southward.

Coincidences of Upper Micrometer-wire (U) with fixed wire.

I.	II.	III.	IV.	V.
10,019	10,028	10,026	10,031	10,039
9,962	9,965	9,966	9,977	9,982
10,021	10,026	10,029	10,034	10,037
9,960	9,967	9,968	9,974	9,977
10,020	10,027	10,029	10,032	10,037
9,959	9,965	9,970	9,973	9,980
Means ... 9,990	9,996	9,998	10,003	10,009

Coincidences of Lower Micrometer (L) with fixed wire.

I.	II.	III.	IV.	V.
9,906	9,868	9,857	9,845	9,830
9,874	9,904	9,894	9,893	9,893
9,908	9,864	9,858	9,843	9,829
9,870	9,902	9,894	9,888	9,894
9,907	9,864	9,856	9,837	9,831
9,878	9,903	9,902	9,896	9,891
Means ... 9,891	9,884	9,877	9,867	9,861

Wire I is that which is nearest the comb. These coincidences differ considerably from those obtained Oct. 24, 1839, and recorded in page xxxv of Vol. xii.

The 'approximate Hour Angles' in the pages containing the *Calculation of Geocentric North Polar Distances*, are the differences between approximate values of the apparent

R.A. of the objects and the sidereal times of observation; and the 'approximate N.P.D.' are apparent N.P.D. derived in the case of the comet from the known apparent N.P.D. of the star by applying the difference of N.P.D. given by the observation and corrected approximately for refraction. The rest of the Calculation requires no explanation in addition to what has been given before. In three instances only (Nos. 11, 12, and 43) the concluded N.P.D. of the comet was obtained without reference to a star, by applying index errors. These were derived from the nearest star observation by subtracting the instrumental N.P.D., corrected accurately for refraction, from the known apparent N.P.D. of the star. The amount of index error is stated in the notes.

The *Remarks on the appearance of the Comet* in page 278 have reference to its brightness and apparent magnitude. The measures of the latter are entitled to little confidence.

II. *Differences of R.A. and N.P.D. of Laugier's Comet and adjacent stars observed with the Five-feet Equatoreal; and calculation of the Geocentric R.A. and N.P.D. of the Comet*, in pages 280—283.

These observations were made and reduced in the same manner as observations of Encke's comet with the Five-feet Equatoreal, and require only the following notices.

During all the observations the graduated face of the Declination Circle was West. The observations of N.P.D. were all taken near the comb, and the reading of micrometer U for coincidence with the fixed wire in that position is assumed to be 9",980, and that of micrometer L, 9",906. These values are derived from the coincidences given above by supposing the distance of the place of bisection from the first wire to be half the distance of the first wire from the fifth.

The assumed R.A. and N.P.D. of the stars were calculated from the following mean R.A. and N.P.D. obtained by meridian observations in 1844.

Designation of Star.	Mean R.A. Jan. 1, 1842.			Mean N.P.D. Jan. 1, 1842.
	<i>h.</i>	<i>m.</i>	<i>s.</i>	
A.S.C. 2236	19.	9.	59.41	105°.48'.17".55
ρ^2 Sagittarii	19.	12.	37.87	108°.35'.40.82
* (a)	19.	13.	19.13	110°.55'.55.41

The 'interpolated R.A.,' computed to second differences, 'the interpolated N.P.D.,' computed to third differences, and the logarithmic distance of the comet used for parallax, were derived from an Ephemeris by M. Petersen in No. 473 of the *Astronomische Nachrichten*.

III. *Miscellaneous observations made with the Northumberland Equatoreal and Mural Circle*, in pages 286—290.

As these observations are accompanied by explanations, only a few points require adverting to.

The value of one revolution of the double-wire micrometer of the Northumberland Telescope is assumed to be 16",970, which is the value obtained in page xxxii of the Introduction to Vol. XII. from transits of Polaris in September 1839. On Jan. 28, 1840, I measured with the double-wire micrometer the differences of R.A. and N.P.D. of two stars which were observed with the meridian instruments in 1839 and 1840. The comparison of five micrometer measures with the differences of R.A. and N.P.D. deduced from the meridian observations, gave 16",966 for the value of one micrometer revolution, which is confirmatory of that obtained by the other method. The approximate mean places of the stars Jan. 1, 1840, are, R.A. $1^h.17^m.20^s$, N.P.D. $33^\circ.28'$; and R.A. $1^h.17^m.55^s$, N.P.D. $33^\circ.32'$.

The adopted value of one revolution of the double-image micrometer, viz. 12",904, was obtained by observations recorded in page xliii of Vol. XIII.

The *observations for Refraction at small altitudes* are reduced exactly in the same manner as the other circle observations as far as obtaining the apparent zenith distance, the adopted zenith point and coincidence reading of the micrometer with the fixed wire, being the same for the same days. As α Lyræ was placed between the micrometer and fixed wires, the correction for micrometer reading is half that calculated in the usual way. The true zenith distances of the stars are the sums of the co-latitude $37^{\circ}.47'.8''.37$ and their apparent N.P.D. calculated from their mean N.P.D. Jan. 1, 1842, as given by the circle observations of that year.

IV. *Occultations of fixed stars by the Moon, and Calculation of the Occultations* in pages 292—300.

The sidereal times of the occultations were derived from the noted times by the comparisons in pages 252 and 253, and the Greenwich Mean Solar Times were calculated in the usual manner. For the Calculation of the Occultations, the Geocentric R.A. and N.P.D. of the Moon's centre, the Horizontal Equatoreal Parallax, and the Geocentric Semidiameter, were interpolated for the time of observation with second differences from the Nautical Almanac; and the assumed R.A. and N.P.D. of the stars were taken from the same work. The Moon's apparent R.A., N.P.D., and semidiameter, the apparent distance of the Star from the Moon's centre, and the coefficients of small variations, were calculated by the formulæ given in pages xxxiii and xxxiv of Vol. XIII.

The *Hourly Meteorological Observations at the Vernal and Autumnal Equinoxes*, (pages 301 and 302) were taken by myself and Mr Glaisher, in conformity with the notice circulated by Sir J. Herschel in 1835. The Barometer readings have been corrected by $-0^{\text{in}}.100$.

All the observations in this Volume were originally recorded in pencil writing in small memorandum books, which are carefully preserved for future reference.

ADDITIONS TO THE INTRODUCTION.

I. THE following Table of *Approximate Refractions*, referred to in page xxxi of the Introduction, was calculated for the purpose of obtaining approximately apparent zenith distances from true zenith distances, and may be useful in other respects. The refractions are given to the nearest second for medium states of the Barometer and Thermometer, and were computed from Bessel's Refraction Tables as given in the Appendix to the Greenwich Observations of 1836.

Table of Approximate Refractions for Barom. 29ⁱⁿ,8 and Therm. 45^o,0.

Apparent Zen. Dist.	Refraction.	Apparent Zen. Dist.	Refraction.	Apparent Zen. Dist.	Refraction.	Apparent Zen. Dist.	Refraction.	Apparent Zen. Dist.	Refraction.
0. 0	0. 0	65. 0	2. 5	76. 15	3. 55	81. 12	6. 2	83. 40	8. 7
4. 0	0. 4	65. 30	2. 8	76. 30	3. 59	81. 18	6. 5	83. 44	8. 11
8. 0	0. 8	66. 0	2. 11	76. 45	4. 3	81. 24	6. 9	83. 48	8. 16
12. 0	0. 12	66. 30	2. 14	77. 0	4. 8	81. 30	6. 13	83. 52	8. 21
16. 0	0. 17	67. 0	2. 17	77. 12	4. 12	81. 36	6. 18	83. 56	8. 25
20. 0	0. 21	67. 30	2. 20	77. 24	4. 16	81. 42	6. 22	84. 0	8. 30
24. 0	0. 26	68. 0	2. 24	77. 36	4. 20	81. 48	6. 26	84. 3	8. 34
28. 0	0. 31	68. 30	2. 27	77. 48	4. 24	81. 54	6. 30	84. 6	8. 38
31. 0	0. 35	69. 0	2. 31	78. 0	4. 29	82. 0	6. 35	84. 9	8. 41
34. 0	0. 39	69. 30	2. 35	78. 10	4. 32	82. 5	6. 39	84. 12	8. 45
37. 0	0. 44	70. 0	2. 39	78. 20	4. 36	82. 10	6. 43	84. 15	8. 49
40. 0	0. 49	70. 30	2. 44	78. 30	4. 40	82. 15	6. 47	84. 18	8. 53
42. 0	0. 53	71. 0	2. 48	78. 40	4. 44	82. 20	6. 51	84. 21	8. 57
44. 0	0. 56	71. 20	2. 51	78. 50	4. 48	82. 25	6. 55	84. 24	9. 1
46. 0	1. 1	71. 40	2. 55	79. 0	4. 52	82. 30	6. 59	84. 27	9. 5
48. 0	1. 5	72. 0	2. 58	79. 10	4. 57	82. 35	7. 3	84. 30	9. 9
50. 0	1. 10	72. 20	3. 2	79. 20	5. 1	82. 40	7. 7	84. 33	9. 14
52. 0	1. 15	72. 40	3. 5	79. 30	5. 6	82. 45	7. 12	84. 36	9. 18
54. 0	1. 20	73. 0	3. 9	79. 40	5. 11	82. 50	7. 16	84. 39	9. 22
55. 0	1. 23	73. 20	3. 13	79. 48	5. 14	82. 55	7. 21	84. 42	9. 27
56. 0	1. 27	73. 40	3. 17	79. 56	5. 18	83. 0	7. 26	84. 45	9. 31
57. 0	1. 30	74. 0	3. 21	80. 4	5. 22	83. 4	7. 30	84. 48	9. 36
58. 0	1. 33	74. 15	3. 24	80. 12	5. 27	83. 8	7. 33	84. 51	9. 40
59. 0	1. 37	74. 30	3. 28	80. 20	5. 31	83. 12	7. 37	84. 54	9. 45
60. 0	1. 41	74. 45	3. 31	80. 28	5. 35	83. 16	7. 41	84. 57	9. 50
61. 0	1. 45	75. 0	3. 35	80. 36	5. 40	83. 20	7. 46	85. 0	9. 55
62. 0	1. 50	75. 15	3. 39	80. 44	5. 44	83. 24	7. 50		
63. 0	1. 54	75. 30	3. 42	80. 52	5. 49	83. 28	7. 54		
64. 0	1. 59	75. 45	3. 46	81. 0	5. 54	83. 32	7. 58		
64. 30	2. 2	76. 0	3. 50	81. 6	5. 58	83. 36	8. 3		

As several of the observations of Encke's comet were taken at zenith distances greater than 85^o, Bessel's Supplementary Tables were used as follows for finding the vertical refractions corresponding to given *true* zenith distances of the objects. Refractions for the given states of the Barometer and Thermometer being calculated for three *apparent* zenith distances, the refractions at three true zenith distances became known, and the refraction at a true zenith distance not far from the middle of the three was found by interpolation. In this computation the following Table, formed from Bessel's Supplementary Tables, was conveniently used.

R = refraction for Barometer 29ⁱⁿ,8, and Thermometer 45^o,0

r = refraction for Barometer B and Thermometer T

$F = B - 29,8$; $G = 45 - T$

$\log r = \log R + \alpha F + \beta G + \gamma F^2 + \delta G^2.$

Apparent Zen. Dist.	R.	Log R.	α .	β .	γ .	δ .
85. 0	9. 53	2,77296	1476	100,2	- 25	0,096
85. 30	10. 49	2,81205	1480	101,7	- 25	0,098
86. 0	11. 49	2,85067	1483	103,6	- 25	0,099
86. 30	13. 0	2,89187	1487	105,9	- 25	0,101
87. 0	14. 27	2,93818	1494	108,7	- 25	0,104
87. 30	16. 16	2,98927	1502	112,2	- 25	0,108
88. 0	18. 26	3,04363	1512	116,7	- 25	0,111
88. 30	21. 11	3,10423	1526	122,3	- 25	0,116
89. 0	24. 49	3,17303	1544	129,7	- 25	0,124
89. 30	29. 35	3,24913	1571	139,5	- 25	0,135

II. Subjoined is a collection of the mean determinations of the error of the Moon's Tabular Semidiameter from the observations contained in this and preceding volumes beginning with that of 1836. In converting the error of the Tabular interval of transit of semidiameter into error of semidiameter, for the observations of 1836, 1837, and 1840, the inverse of the multiplier in p. ii, was used with the omission of the factor $\frac{\sin \text{ } \delta \text{'s geocentric Z.D.}}{\sin \text{ } \delta \text{'s apparent Z.D.}}$, and the calculations were consequently slightly inaccurate. This omission is supplied in the following results. Also the intervals of transit of diameter given by Mr Baldrey's observations are corrected by the mean quantity $-0^s,30$, this appearing from his observations of the Sun to be the mean amount of error from discordant observations of first and second limbs.

Year.	Instrument employed.	Number of observations.	Mean Error of Tabular semidiameter	Weight of Result.
1836	Transit	3	- 2,88	3
1836	Circle	6	- 2,51	6
1837	Transit	3	- 2,80	3
1837	Circle	4	- 3,01	4
1838	Transit	6	- 1,79	6
1838	Circle	8	- 2,46	8
1838	{ Five-feet Equatoreal }	18	- 1,41	13
1839	Transit	5	- 2,32	5
1839	Circle	3	- 2,90	3
1840	Transit	4	- 1,94	4
1840	Circle	2	- 3,26	2
1842	Transit	3	- 0,95	1
1842	Circle	3	- 2,19	3

In estimating the weight of the results, an observation with the Transit is considered equal to a Circle observation, and an observation with the Five-feet Equatoreal to be of less weight in the proportion of 5 to 7, the wires being fewer in this ratio. The transits of 1842 were very unsatisfactory. The mean result by the 68 observations is, that the Tabular Semidiameter is too small by $2'',21$.

TRANSITS AS OBSERVED,
AND
CALCULATION
OF THE
APPARENT RIGHT ASCENSIONS.

1842.

TRANSITS OBSERVED IN THE YEAR 1842.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Jan. 15	α Arietis.....	4,6	19,1	33,2	48,1	2,8	17,2	1.58.32,0		1.57.48,15	B.
	Σ 285.....	58,1	14,2	30,0	46,1	2,4	18,1	2.29.34,1		2.28.46,14	B.
	(a) Σ 291. p.....	6,1	20,1	34,1	48,1	2,9	16,8	2.32.31,0		2.31.48,45	B.
	Castor.....	15,9	31,9	47,3	3,8	19,3	35,3	7.24.51,2		7.24.3,53	B.
	Procyon.....	53,3	7,2	20,4	34,0	47,3	1,0	7.31.14,5		7.30.33,96	B.
	Pollux.....	25,2	40,5	55,9	11,1	26,5	42,0	7.35.56,9		7.35.11,15	B.
Jan. 17	(a) \odot 1 L.....	2,2	16,8	31,0	45,7	59,9	14,3	19.55.28,9		19.54.45,54	B.
	\odot 2 L.....	22,1	36,4	51,1	5,8	20,0	34,2	19.57.48,8		19.57.5,49	B.
	γ 1 L.....	33,8	47,4	1,7	15,2	29,0	42,9	23.59.56,4		23.59.15,20	B.
	δ Piscium.....	16,9	30,4	43,8	57,8	11,1	24,6	0.12.38,1		0.11.57,53	B.
	ϵ Piscium.....	23,3	37,9	52,1	6,7	21,1	35,2	0.31.49,6		0.31.6,56	B.
	Σ 51.....	18,0	32,0	46,2	0,7	14,3	0.35.28,1		-7,02	0.34.46,20	B.
	ϕ Piscium.....	56,3	11,1	25,6	40,8	55,0	9,9	1.5.24,3		1.4.40,42	B.
	42 Ceti.....	59,9	13,7	27,1	40,3	1.11.53,8			-13,45	1.11.13,51	B.
	A.S.C. 175.....	36,0	49,7	3,0	16,8	30,3	44,1	1.27.57,3		1.27.16,74	B.
	Piazzi I. 191.....	28,1	41,9	55,0	9,0	22,9	36,4	1.43.50,2		1.43.9,08	B.
	α Arietis.....	3,0	17,4	31,9	46,9	1,2	16,1	1.58.30,4		1.57.46,70	B.
	Σ 285.....	56,9	12,8	28,3	44,7	0,8	16,9	2.29.32,7		2.28.44,73	B.
	Σ 291.....	4,2	18,1	32,3	47,0	1,1	15,0	2.32.29,0		2.31.46,67	B.
	α Ceti.....	51,2	4,5	18,1	31,6	45,1	58,6	2.54.12,0		2.53.31,58	B.
	δ Pleiadum.....	44,0	59,1	13,2	28,1	42,9	57,3	3.37.12,0		3.36.28,09	B.
	(b) Aldebaran.....	40,4	54,2	8,2	22,9	36,4	50,2	4.27.4,4		4.26.22,38	B.
	(b) Rigel.....	46,9	0,2	14,2	27,3	41,1	55,1	5.7.8,2		5.6.27,57	B.
	ϵ Orionis.....	32,2	46,1	59,2	13,2	26,4	40,0	5.27.53,3		5.27.12,91	B.
	δ Ursæ Minoris SP.	10.51,7	14.37,4	18.22,8	22.9,6	25.59,3	29.42,3	6.33.29,2		6.22.10,33	B.
	(c) Σ 1083.....	3,2	17,6	31,7	46,2	0,9	15,0	7.16.29,7		7.15.46,33	B.
	(b) Castor.....	14,5	30,4	46,1	2,2	18,0	34,0	7.24.50,0		7.24.2,17	B.
	(b) Procyon.....	52,1	5,8	19,1	32,8	46,2	59,8	7.31.13,1		7.30.32,70	B.
	(b) Pollux.....	24,0	39,2	54,3	9,9	25,1	40,2	7.35.55,7		7.35.9,78	B.
	(d) δ Ursæ Minoris...	22.22,5	29.56,2	18.33.41,3	-6.17,36	18.22.23,64					B.
Jan. 19	γ 1 L.....	39,0	53,2	7,3	21,8	36,2	50,2	1.34.4,6		1.33.21,75	B.
	(e) β Arietis.....	40,7	55,1	9,2	23,6	38,1	52,3	1.46.6,7		1.45.23,67	B.
	(e) α Arietis.....	1,4	16,0	30,3	45,0	59,7	14,1	1.58.28,7		1.57.45,03	B.
	(e) α Ceti.....	49,7	3,2	16,6	30,3	43,8	57,1	2.54.11,1		2.53.30,25	B.
Jan. 23	(b) Aldebaran.....	36,2	50,2	4,0	18,2	32,0	46,3	4.27.0,2		4.26.18,16	B.
	β Tauri.....	59,6	15,2	30,1	45,6	1,1	16,0	5.16.31,6		5.15.45,60	B.
	δ Ursæ Minoris...	11.2,6	14.48,3	18.31,5	22.21,4	26.7,7	29.52,7	18.33.39,8		18.22.20,57	B.
Jan. 24	(f) \odot 1 L.....	34,4	49,1	3,3	17,9	32,1	46,3	20.25.0,6		20.24.17,67	B.
	\odot 2 L.....	53,3	7,8	22,0	36,2	50,6	5,0	20.27.18,9		20.26.36,26	B.
	α Pegasi.....	36,0	50,1	3,8	17,8	31,6	45,5	22.56.59,3		22.56.17,73	B.
	α Andromedæ.....	52,2	7,8	22,7	38,0	53,2	8,8	0.0.24,0		23.59.38,10	B.
	A.S.C. 175.....	31,2	45,1	58,0	12,0	25,9	39,1	1.27.52,8		1.27.12,01	B.
	(c) Σ 221.....	39,7	54,0	8,1	22,7	36,8	51,0	2.1.5,1		2.0.22,48	B.
	Σ 285.....	51,9	8,1	23,7	40,0	56,1	11,7	2.29.28,1		2.28.39,94	B.
	Σ 291. p.....	59,9	14,0	27,9	41,9	56,1	10,0	2.32.24,2		2.31.42,00	B.
	α Ceti.....	46,2	0,1	13,2	27,0	40,5	54,0	2.54.7,4		2.53.26,92	B.
	Aldebaran.....	35,7	50,0	3,4	17,8	31,6	45,3	4.26.59,7		4.26.17,65	B.
	(d) β Tauri.....	59,0	14,2	29,4	45,1	0,4	15,4	5.16.30,9		5.15.44,91	B.
	(d) H Geminorum...	14,0	28,1	42,8	57,7	12,2	26,9	5.54.41,7		5.53.57,63	B.
	(d) μ Geminorum....	6,9	21,6	36,4	51,1	5,2	19,8	6.13.34,4		6.12.50,77	B.
Jan. 25	β Tauri.....	58,4	14,2	29,0	44,5	59,9	15,3	5.16.30,2		5.15.44,50	B.
	H Geminorum....	12,9	27,9	42,1	57,2	11,9	26,1	5.54.40,9		5.53.57,00	B.
	μ Geminorum....	6,6	21,1	35,0	50,0	4,9	19,3	6.13.34,1		6.12.50,14	B.
	δ Geminorum....	23,2	38,0	52,1	7,1	21,5	36,1	7.10.50,6		7.10.6,95	B.
	Castor.....	9,2	25,1	40,8	57,0	13,0	28,8	7.24.44,7		7.23.56,94	B.
	Procyon.....	46,7	0,2	13,7	27,2	41,2	54,3	7.31.7,7		7.30.27,29	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Cloudy.
 (b) Blazing.
 (c) Faint.

(d) Very cloudy.
 (e) Hazy.
 (f) Great motion.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
+ 0,10	- 3,01	+ 6,07	48,19	18,04	29,85	0,67	29,88	1 58. 18,12	- 1,23	α Arietis.
			46,08					2 29. 16,03	- 1,45	Σ 285.
			48,53					2 32. 18,48	- 1,45	Σ 291. <i>p.</i>
			3,48	33,65	30,17			7 24. 33,57	- 3,00	Castor.
			34,13	4,18	30,05			7 31. 4,22	- 2,47	Procyon.
			11,13	41,28	30,15			7 35. 41,22	- 2,89	Pollux.
			55,89			0,71	30,49	19 56. 26,97		\odot 's center.
								23 59. 46,57		γ 1 L.
							31,20	0 12. 28,90	- 0,55	δ Piscium.
								0 31. 37,83	- 0,58	55 Piscium.
								0 35. 17,51	- 0,64	Σ 51.
								1 5. 11,67	- 0,81	ϕ Piscium.
								1 11. 44,97	- 0,93	42 Ceti.
								1 27. 48,14	- 1,00	A.S.C. 175.
								1 43. 40,47	- 1,10	Piazzi I. 191.
				18,01	31,27			1 58. 18,00	- 1,20	α Arietis.
			46,74					2 29. 15,94	- 1,46	Σ 285.
			44,67					2 32. 18,02	- 1,43	Σ 291.
			46,75					2 54. 3,05	- 1,51	α Ceti.
			31,76	3,18	31,42			3 36. 59,44	- 1,89	δ Pleiadum.
			28,13					4 26. 53,80	- 2,11	Aldebaran.
			22,47	53,76	31,29			5 6. 59,19	- 2,09	Rigel.
			27,84	58,98	31,14			5 27. 44,52	- 2,17	ϵ Orionis.
			13,16					18 22. 48,72	+ 28,55	δ Ursæ Min. SP.
			17,33	48,27	30,94			7 16. 17,80	- 2,73	Σ 1083.
			46,38					7 24. 33,54	- 3,02	Castor.
			2,12	33,67	31,55			7 31. 4,29	- 2,49	Procyon.
			32,87	4,20	31,33			7 35. 41,18	- 2,91	Pollux.
			9,76	41,30	31,54			18 22. 48,78	+ 28,49	δ Ursæ Minoris.
			17,04	48,33	31,29					
			21,84			0,73	32,76	1 33. 54,65		γ 1 L.
			23,73					1 45. 56,54	- 1,07	β Arietis.
			45,07	17,99	32,92					α Arietis.
			30,43	3,16	32,73					α Ceti.
	- 2,81	+ 6,15	18,26	53,71	35,45	0,64	35,29			Aldebaran.
			45,61	21,00	35,39					β Tauri.
			14,11	48,97	34,86	0,62	35,32	18 22. 49,91	+ 27,85	δ Ursæ Minoris.
			27,33					20 26. 3,18		\odot 's center.
								22 56. 53,77	- 0,05	α Pegasi.
				53,76	35,91			0 0. 14,05	- 0,22	α Andromedæ.
				14,20	36,09			1 27. 48,16	- 0,93	A.S.C. 175.
							35,94	2 0. 58,54	- 1,12	Σ 221.
								2 29. 15,90	- 1,35	Σ 285.
								2 32. 18,10	- 1,33	Σ 291. <i>p.</i>
				3,10	35,98			2 54. 3,13	- 1,43	α Ceti.
				53,70	35,95			4 26. 53,80	- 2,05	Aldebaran.
				21,00	36,08			5 16. 21,00	- 2,51	β Tauri.
			57,68					5 54. 33,77	- 2,58	H Geminorum.
			50,82					6 13. 26,92	- 2,65	μ Geminorum.
			44,51	20,99	36,48	0,61	36,52	5 16. 21,16	- 2,50	β Tauri.
			57,05					5 54. 33,72	- 2,59	H Geminorum.
			50,19					6 13. 26,87	- 2,64	μ Geminorum.
			7,02					7 10. 43,72	- 2,81	δ Geminorum.
			56,91	33,73	36,82			7 24. 33,62	- 3,08	Castor.
			27,47	4,25	36,78			7 31. 4,18	- 2,54	Procyon.

The methods of obtaining the Errors of Collimation and Level, and the calculations for finding the Meridian Error, are fully given in the Introduction.

The Error of Collimation was determined by the Reversion of the Transit on Feb. 23.

Jan. 17. 2^h, and Jan. 27. 2^h, the Transit was levelled.

TRANSITS OBSERVED IN THE YEAR 1842.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Jan. 25	κ Geminorum.	35,8	50,5	5,1	20,1	35,1	50,0	7.35.45		7.34.20,15	B.
	(a) γ 1 L.	47,5	2,9	17,8	32,4	47,3	2,3	7.46.17,1		7.45.32,47	B.
	θ Cancr.	17,9	32,1	46,1	0,6	15,1	28,9	8.22.43,2		8.22.05,5	B.
	(b) δ Cancr.	25,1	39,2	53,1	7,8	22,1	36,1	8.35.50,5		8.35.7,70	B.
Jan. 26	(c) δ Ursæ Minoris...	10.59,6	14.46,3	18.29,4	...	...	29.51,2	18.33.37,5	+ 0.45,63	18.22.18,43	B.
Jan. 27	(d) \odot 1 L.	2,7	17,1	31,2	45,4	0,1	13,7	20.37.28,1		20.36.45,47	B.
	\odot 2 L.	20,4	35,0	48,9	3,6	17,8	31,9	20.39.46,0		20.39.3,37	B.
	α Pegasi.	33,9	48,0	1,8	15,9	29,7	43,6	22.56.57,4		22.56.15,76	B.
	(c) α Andromedæ	50,7	5,9	21,0	...	...	7,0	0.0.21,9	+ 3,08	23.59.36,38	B.
	α Ceti	44,5	58,1	11,7	25,1	38,4	51,8	2.54.5,2		2.53.24,97	B.
	Aldebaran.	33,9	48,3	1,7	15,8	30,0	43,7	4.26.57,6		4.26.15,86	B.
	β Tauri.	57,0	12,4	27,3	43,1	58,2	13,4	5.16.29,0		5.15.42,91	B.
	ϵ Orionis.	25,9	39,1	52,5	6,2	20,0	33,4	5.27.46,9		5.27.6,29	B.
	δ Ursæ Min. SP. ...	10.45,2	14.31,6	18.17,2	22.4,4	25.53,5	29.36,8	6.33.23,6		6.22.4,61	B.
	δ Geminorum.	22,0	36,5	50,7	5,6	20,1	34,7	7.10.49,1		7.10.5,53	B.
	Castor.	7,9	23,8	39,6	55,5	11,8	27,3	7.24.43,1		7.23.55,57	B.
	Procyon.	45,2	59,1	12,3	25,9	39,7	53,1	7.31.6,8		7.30.26,01	B.
	κ Geminorum.	34,1	49,0	3,9	18,8	33,7	48,7	7.35.3,4		7.34.18,80	B.
	(e) θ Cancr. ....	...	...	45,1	59,8	13,8	28,0	8.22.41,8	- 14,19	8.21.59,51	B.
	(f) δ Cancr.	23,6	38,1	51,7	6,4	20,7	34,7	8.35.49,1		8.35.6,33	B.
	14 Leonis.	25,7	39,8	53,2	6,9	20,7	34,2	9.32.48,1		9.32.6,94	B.
	(d) γ 2 L.	23,0	36,8	50,5	5,0	19,0	33,0	9.52.47,0		9.52.4,90	B.
	Regulus.	39,9	53,6	7,2	21,1	35,1	48,9	10.0.2,8		9.59.21,22	B.
	γ Leonis.	56,2	10,8	25,0	39,4	54,0	8,3	10.11.22,6		10.10.39,48	B.
	ρ Leonis.	12,1	26,0	39,3	53,1	7,1	20,6	10.24.34,1		10.23.53,18	B.
	(g) δ Ursæ Minoris...	10.58,3	14.46,2	18.28,4	22.18,8	26.5,2	29.49,7	18.33.35,8		18.22.17,49	B.
	α Aquilæ.	44,8	58,4	11,9	25,8	39,3	53,0	19.43.6,2		19.42.25,63	B.
Jan. 28	\odot 1 L.	10,4	24,2	38,7	53,0	7,1	21,2	20.41.35,8		20.40.52,91	B.
	\odot 2 L.	27,9	42,1	56,0	10,7	25,0	39,0	20.43.53,1		20.43.10,54	B.
	α Pegasi.	33,1	47,2	0,9	14,9	28,8	42,6	22.56.56,5		22.56.14,86	B.
	α Andromedæ.	49,6	4,9	19,9	35,3	50,7	5,9	0.0.21,1		23.59.35,34	B.
	α Arietis.	55,7	10,2	24,4	39,3	54,0	8,6	1.58.23,0		1.57.39,32	B.
Jan. 29	β Tauri.	55,1	10,4	25,8	41,2	56,5	12,0	5.16.27,1		5.15.41,15	B.
	(c) ϵ Orionis.	23,7	37,1	50,8	4,6	18,0	31,3	5.27.44,8		5.27.4,33	B.
Jan. 31	δ Ursæ Minoris ...	...	14.42,8	18.25,7	22.16,0	26.1,7	29.46,3	18.33.34,4	- 1.53,13	18.22.14,69	G.
Feb. 1	(h) \odot 1 L.	31,8	46,2	0,2	14,4	28,6	42,5	20.57.56,7		20.57.14,34	C.
	\odot 2 L.	48,2	2,6	16,5	30,7	45,0	59,0	21.0.13,1		20.59.30,72	C.
	α Andromedæ. ....	...	...	16,4	31,9	47,1	2,4	0.0.17,7	- 15,25	23.59.31,85	C.
	Polaris.	36.31,4	45.1,8	53.20,2	1.53,5	10.20,0	18.42,7	1.27.10,6		1.1.51,46	G.
	(i) Rigel.	35,4	49,1	2,5	16,3	30,0	43,5	5.6.56,9		5.6.16,24	C.
	β Tauri.	52,7	8,0	23,0	38,5	53,9	9,2	5.16.24,5		5.15.38,55	C.
Feb. 2	(k) \odot 1 L.	35,6	49,8	3,5	18,0	32,0	45,9	21.2.0,0		21.1.17,83	G.
	\odot 2 L.	51,4	5,7	19,3	33,7	48,0	2,0	21.4.16,0		21.3.33,73	G.
	(l) Polaris.	36.29,2	44.59,5	53.18,6	1.51,0	10.18,0	...	1.	+ 8.26,19	1.1.49,45	G.
	(m) α Aquilæ.	39,5	53,0	6,4	20,4	33,9	47,6	19.43.1,1		19.42.20,27	G.
Feb. 3	\odot 1 L.	38,0	51,9	5,9	20,2	34,1	48,2	21.6.2,5		21.5.20,11	G.
	\odot 2 L.	53,7	8,0	21,7	35,9	50,1	4,0	21.8.18,3		21.7.35,96	G.
	α Andromedæ. ....	...	...	14,3	30,0	45,2	0,6	0.0.15,7	- 0.15,25	23.59.29,91	G.
Feb. 5	(n) \odot 2 L. ....	...	...	...	37,6	52,0	5,7	21.16.19,9	- 21,09	21.15.37,71	C.
	α Pegasi. ....	...	...	...	7,5	21,2	35,0	22.56.49,0	- 20,86	22.56.7,31	C.
	Polaris. ....	...	...	53.14,2	1.47,6	10.13,5	18.36,6	1.27.4,7	- 8.25,92	1.1.45,40	C.
	(o) α Arietis.	47,6	2,2	16,5	31,3	46,0	0,6	1.58.15,2		1.57.31,34	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Ragged and unsteady. (b) Temperature 28°. (c) Cloudy. (d) Unsteady. (e) Very hazy and faint. (f) Hazy, Temperature 36°. Great change of Temperature since the 25th. (g) Faint. (h) Limbs waving and irregular. (i) Flaring. (k) Very misty. (l) Interrupted by clouds: wire V very doubtful. (m) Faint from misty clouds. (n) Very cloudy. (o) After this to the 10th the weather was cloudy.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.	
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.		
+ 0,10	- 2,81	+ 6,15	20,18			0,61	36,52	7.34.56,89	- 2,88	κ Geminorum.	
			32,54					7.46.9,26		γ 1 L.	
			0,63					8.22.37,36	- 2,79	θ Cancr.	
			7,78					8.35.44,52	- 2,77	δ Cancr.	
			11,97	49,33	37,36	0,79	37,04	18.22.49,62	+ 27,49	δ Ursæ Minoris.	
			54,77					20.38.32,49		☉'s center.	
			15,88	53,75	37,87			22.56.53,68	- 0,04	α Pegasi.	
			36,39	14,17	37,78			0.0.14,22	- 0,19	α Andromedæ.	
			25,17	3,07	37,90		37,83	2.54.3,10	- 1,40	α Ceti.	
			15,96	53,67	37,71			4.26.53,93	- 2,02	Aldebaran.	
			42,92	20,97	38,05			5.16.20,92	- 2,48	β Tauri.	
			6,56					5.27.44,57	- 2,11	ι Orionis.	
			11,49	49,41	37,92			18.22.49,53	+ 27,41	δ Ursæ Min. SP.	
			5,60					7.10.43,67	- 2,81	δ Geminorum.	
			55,54	33,73	38,19			7.24.33,61	- 3,08	Castor.	
			26,19	4,25	38,06			7.31.4,27	- 2,54	Procyon.	
			18,83					7.34.56,91	- 2,90	κ Geminorum.	
			59,59					8.22.37,70	- 2,80	θ Cancr.	
			6,41					8.35.44,52	- 2,78	δ Cancr.	
			7,09					9.32.45,23	- 2,58	14 Leonis.	
			5,05					9.52.43,21		γ 2 L.	
			21,35	59,65	38,30			9.59.59,51	- 2,54	Regulus.	
			39,55					10.11.17,72	- 2,64	γ Leonis.	
			53,33					10.24.31,50	- 1,80	ρ Leonis.	
			11,03	49,50	38,47	0,87	37,80	18.22.49,50	+ 27,32	δ Ursæ Minoris.	
			25,79	4,29	38,50			19.43.4,31	+ 0,19	α Aquilæ.	
			2,08					20.42.40,63		☉'s center.	
			14,98	53,74	38,76			22.56.53,61	- 0,03	α Pegasi.	
			35,35	14,16	38,81			0.0.14,02	- 0,18	α Andromedæ.	
			39,37	17,86	38,49		38,67	1.58.18,11	- 1,05	α Arietis.	
			41,16	20,96	39,80	0,93	39,60			β Tauri.	
			4,60					5.27.44,41	- 2,10	ι Orionis.	
			8,23	50,30	42,07	0,98	41,20	18.22.50,18	+ 26,52	δ Ursæ Minoris.	
			22,88					20.59.4,94		☉'s center.	
			31,86	14,12	42,26			0.0.14,04	- 0,14	α Andromedæ.	
			36,76	19,14	42,38		42,18	1.2.18,98	+ 24,37	Polaris.	
			16,52	58,86	42,34			5.6.58,91	- 1,97	Rigel.	
			38,56	20,93	42,37			5.16.20,96	- 2,44	β Tauri.	
	- 3,14		26,12			1,03	42,12	21.3.9,14		☉'s center.	
			34,08	18,51	44,43		43,15	1.2.17,27	+ 25,00	Polaris.	
			20,42	4,39	43,97					α Aquilæ.	
			28,38					21.7.12,44		☉'s center.	
			29,89	14,10	44,21					α Andromedæ.	
			38,04			1,07	45,25	21.16.24,24		☉ 2 L.	
			7,41	53,72	46,31					α Pegasi.	
			30,03	16,62	46,59		46,32	1.2.16,40	+ 26,89	Polaris.	
			31,37	17,74	46,37					α Arietis.	

The levelling of the Transit having been omitted between Jan. 27 and Feb. 14, the mean of the determinations on those days is used from Feb. 2.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	
Feb. 10	(a) Aldebaran .....	...	...	48,4	2,5	16,4	30,5	4. 26. 44,6	- 14,00	4. 26. 2,48	C.
Feb. 11	(b) ☉ 1 L.	29,2	42,8	...	...	...	38,6	21. 37. 52,3	- 0,01	21. 37. 10,71	C.
	☉ 2 L.	42,6	57,1	10,8	...	38,5	52,3	21. 39.	+ 8,35	21. 39. 24,61	C.
Feb. 12	(c) ☉ 2 L. ....	...	...	5,6	19,8	33,7	...	21. 44. 1,5	- 10,41	21. 43. 19,74	C.
	(d) Rigel	24,3	37,9	51,2	4,9	18,4	32,2	5. 6. 45,9		5. 6. 4,97	G.
	β Tauri	41,5	56,8	11,9	...	...	58,0	5. 16. 13,3	+ 3,09	5. 15. 27,39	G.
	(e) α Orionis .....	...	...	...	46,0	59,3	12,9	5. 46.	- 13,60	5. 45. 45,80	G.
Feb. 13	δ Ursæ Minoris...	...	14.32,8	18.15,6	22. 5,0	25.50,8	29.37,0	18. 33. 23,7	- 1. 53,10	18. 22. 4,38	G.
	(f) α Aquilæ	28,4	42,0	55,5	9,4	22,9	36,5	19. 42. 50,0		19. 42. 9,25	C.
Feb. 14	(g) ☉ 1 L. ....	...	...	39,5	53,8	7,5	21,6	21. 49. 35,2	- 13,84	21. 48. 53,68	C.
	☉ 2 L.	25,6	39,7	53,2	7,3	21,2	34,9	21. 51. 48,8		21. 51. 7,24	C.
	α Pegasi	16,6	30,5	44,2	58,3	12,2	26,0	22. 56. 39,8		22. 55. 58,23	C.
	α Andromedæ....	32,7	48,0	3,2	18,7	33,8	49,1	0. 0. 4,4		23. 59. 18,56	C.
	γ 1 L.	37,6	51,5	5,3	19,4	33,3	47,1	0. 30. 0,8		0. 29. 19,29	C.
	Polaris	36. 9,7	44.40,0	52.56,6	1.30,5	9.58,2	18.20,6	1. 26. 48,3		1. 1. 29,13	C.
	α Arietis	38,2	53,0	7,3	22,1	36,6	51,2	1. 58. 5,8		1. 57. 22,03	C.
	☉ 1 L.	5,3	18,9	32,6	46,5	0,6	14,3	21. 53. 28,2		21. 52. 46,63	C.
Feb. 15	☉ 2 L.	18,3	32,2	45,7	59,9	13,5	27,3	21. 55. 41,0		21. 54. 59,70	C.
	(h) α Pegasi .....	...	...	...	57,1	11,0	24,8	22. 56. 38,7	- 20,87	22. 55. 57,03	C.
	γ 1 L.	31,8	46,0	59,8	14,2	28,6	42,5	1. 16. 56,8		1. 16. 14,24	G.
	β Arietis	16,3	30,9	45,0	59,6	13,9	28,2	1. 45. 42,5		1. 44. 59,49	G.
	Aldebaran	14,7	28,5	42,3	56,7	10,7	24,6	4. 26. 38,6		4. 25. 56,59	C.
	ω Aurigæ	46,8	4,1	20,8	38,0	55,1	11,8	4. 48. 28,9		4. 47. 37,93	C.
	(i) β Tauri	37,7	53,4	8,3	...	39,2	...	5. 16. 9,9	+ 6,13	5. 15. 23,83	C.
	☉ 1 L.	57,2	11,3	24,7	38,8	52,5	6,4	21. 57. 20,2		21. 56. 38,73	C.
Feb. 16	☉ 2 L.	10,0	24,1	37,3	51,5	5,5	19,3	21. 59. 33,1		21. 58. 51,54	C.
	(k) α Pegasi	14,3	28,1	41,8	55,9	9,8	23,6	22. 56. 37,5		22. 55. 55,86	C.
	α Andromedæ. ...	30,5	45,6	0,8	16,4	31,6	46,7	0. 0. 2,0		23. 59. 16,23	C.
	β Arietis	15,4	29,6	43,8	58,4	12,7	27,0	1. 45. 41,1		1. 44. 58,29	C.
	α Arietis	35,9	50,6	5,0	19,7	34,4	48,9	1. 58. 3,5		1. 57. 19,72	C.
	(l) γ 1 L.	24,7	39,2	53,4	8,3	22,5	37,3	2. 6. 51,7		2. 6. 8,16	C.
	(h) Aldebaran	13,3	27,4	41,2	55,5	9,6	23,5	4. 26. 37,5		4. 25. 55,43	C.
	ε Arietis	30,3	44,6	58,7	13,4	27,8	42,2	2. 49. 56,4		2. 49. 13,34	C.
Feb. 17	α Ceti	23,0	36,5	49,8	3,4	16,9	30,2	2. 53. 43,8		2. 53. 3,37	C.
	(m) γ 1 L.	9,4	24,4	38,7	53,7	8,8	23,6	3. 0. 38,6		2. 59. 53,88	C.
	(n) g Arietis .....	...	32,2	46,6	1,4	16,4	31,1	3. 14. 46,0	- 7,38	3. 14. 1,57	C.
	(o) η Tauri	24,5	39,2	53,4	8,6	23,2	38,0	3. 37. 52,5		3. 37. 8,49	C.
	Σ 535	54,5	8,4	21,8	36,0	49,3	3,2	4. 14. 16,8		4. 13. 35,71	C.
	Aldebaran	12,3	26,2	40,1	54,2	8,4	22,3	4. 26. 36,4		4. 25. 54,27	C.
	Σ 577	49,0	5,7	22,5	39,6	56,5	13,5	4. 31. 30,4		4. 30. 39,60	C.
	(p) Rigel	18,4	32,1	45,7	59,3	12,9	26,7	5. 6. 40,1		5. 5. 59,32	G.
	β Tauri	35,7	51,0	6,1	21,8	36,9	52,2	5. 16. 7,5		5. 15. 21,60	G.
	α Orionis	59,4	13,0	26,1	40,2	53,7	7,0	5. 46. 20,8		5. 45. 40,02	G.
	(q) δ Ursæ Minoris SP.	10.30,2	14.16,2	18. 1,6	21.48,4	25.36,8	...	6. 33. 8,0	+ 1. 15,25	6. 21. 48,78	G.
	Feb. 18	(r) α Andromedæ....	28,2	43,3	58,3	13,9	29,2	44,4	23. 59. 59,3		23. 59. 13,80	C.
(s) α Arietis		33,6	48,2	2,5	17,3	32,0	46,3	1. 58. 1,2		1. 57. 17,30	C.
α Ceti		21,9	35,4	48,6	2,5	15,8	29,3	2. 53. 42,8		2. 53. 2,33	C.
g Arietis		16,2	31,0	45,5	0,5	15,2	30,0	3. 14. 44,6		3. 14. 0,43	C.
η Tauri		23,4	38,1	52,5	7,6	22,3	36,8	3. 37. 51,5		3. 37. 7,46	C.
(t) γ 1 L.		13,8	29,3	44,3	59,7	15,2	30,4	3. 58. 45,6		3. 57. 59,76	C.
ν ¹ Tauri		9,4	24,1	38,5	53,3	7,7	22,2	4. 16. 36,8		4. 15. 53,14	C.
Aldebaran		11,0	25,2	38,8	53,1	7,2	21,1	4. 26. 35,2		4. 25. 53,08	C.
τ Tauri		4,1	18,6	32,8	47,7	2,3	16,8	4. 32. 31,4		4. 31. 47,67	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Hurried, and eye-glass not well adjusted. (b) Mostly without dark glass: wires lost by the loudness of the wind. Wire I of 2 L. was very doubtful. (c) Extremely cloudy and perplexing. (d) Much clouded, and wind loud. (e) Barely visible. (f) Wire III was written down 54,5 and is altered by considering the intervals. (g) Cloudy and bad. The observation was found 1^s in advance and is altered. 2 L. was better. (h) Cloudy. (i) Seen very faintly through clouds. (j) Unsteady. (k) Rather confused. (l) Much tremor. (m) Counting found in defect: the observation has been increased 31^s. (n) Wire III was written down confusedly 56,4. (o) Wire VI was written down 29.14,8 and is rejected as being discordant. The last wires were much clouded. (p) Flaring. (q) Wire VI was written down 29.14,8 and is rejected as being discordant. The last wires were much clouded. (r) Extremely unsteady. (s) Disturbed by a noise in the court. Wire I was set down 34,6. (t) Not satisfactory.

CALCULATION OF APPARENT RIGHT ASCENSIONS.

7

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.	
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.		
+ 0,10	- 3,46	+ 5,16	2,51	53,50	50,99	1,14	50,78			Aldebaran.	
			{ 17,90					21 . 39 . 9,71		☉'s center.	
				19,98			1,16	52,07	21 . 44 . 13,10		☉ 2 L.
				5,17	58,71	53,54		53,23	5 . 6 . 58,65	- 1,82	Rigel.
				27,32	20,79	53,47		5 . 16 . 20,80	- 2,30	β Tauri.	
				45,89	39,35	53,46		5 . 46 . 39,40	- 2,16	α Orionis.	
			57,94	53,10	55,16	1,15	54,35			δ Ursæ Minoris.	
			9,33	4,59	55,26		19 . 43 . 4,62	- 0,11	α Aquilæ.		
			{ 0,69					21 . 50 . 56,09		☉'s center.	
				58,27	53,71	55,44		22 . 56 . 53,72	0,00	α Pegasi.	
				18,49	14,01	55,52	55,50	0 . 0 . 13,99	- 0,03	α Andromedæ.	
				19,37				0 . 30 . 14,89		☉ 1 L.	
				14,58	10,24	55,66		0 . 30 . 14,89		Polaris.	
			22,01	17,62	55,61	1 . 58 . 17,60		- 0,81	α Arietis.		
			{ 53,40			1,19	55,48	21 . 54 . 49,97		☉'s center.	
				57,07	53,72		56,65	22 . 56 . 53,69	- 0,01	α Pegasi.	
				14,30			56,67	1 . 17 . 11,03		☉ 1 L.	
				59,49			1 . 45 . 56,24	- 0,71	β Arietis.		
				56,62	53,42	56,80	4 . 26 . 53,51	- 1,77	Aldebaran.		
				37,77			4 . 48 . 34,68	- 2,22	ω Aurigæ.		
				23,76	20,74	56,98	5 . 16 . 20,69	- 2,25	β Tauri.		
		{ + 3,11		45,24		1,18	56,70	21 . 58 . 43,02		☉'s center.	
				55,81	53,72		57,91	22 . 56 . 53,64	- 0,01	α Pegasi.	
				16,10	14,00	57,90		0 . 0 . 13,98	- 0,02	α Andromedæ.	
			58,21			57,88	1 . 45 . 56,18	- 0,70	β Arietis.		
			19,62	17,59	57,97	1 . 58 . 17,59	- 0,78	α Arietis.			
			8,09			2 . 7 . 6,07		☉ 1 L.			
			55,38	53,41	58,03	4 . 26 . 53,48	- 1,76	Aldebaran.			
			13,26			1,19	59,03	2 . 50 . 12,43	- 1,11	ε Arietis.	
			3,39	2,77	59,38		2 . 54 . 2,56	- 1,10	α Ceti.		
			53,80				3 . 0 . 52,98		☉ 1 L.		
		1,47				3 . 15 . 0,66	- 1,30	g Arietis.			
		8,39				3 . 38 . 7,60	- 1,46	η Tauri.			
		35,68				4 . 14 . 34,92	- 1,61	Σ 535.			
		54,22	53,39	59,17		4 . 26 . 53,47	- 1,74	Aldebaran.			
		39,40				4 . 31 . 38,65	- 2,20	Σ 577.			
		59,40	58,63	59,23		5 . 6 . 58,68	- 1,74	Rigel.			
		21,47	20,71	59,24		5 . 16 . 20,76	- 2,22	β Tauri.			
		40,01	39,29	59,28		5 . 46 . 39,33	- 2,10	α Orionis.			
		53,97	54,13	60,16		18 . 22 . 53,32	+ 22,69	δ Ursæ Min. SP.			
	- 3,55										α Andromedæ.
										0,00	α Arietis.
										- 0,76	α Ceti.
										- 1,09	g Arietis.
										- 1,28	η Tauri.
										- 1,44	☉ 1 L.
										- 1,71	ν ¹ Tauri.
										- 1,73	Aldebaran.
										- 1,82	τ Tauri.

Feb. 14. 4^h, the Transit was levelled.

The Transit was levelled Feb. 22. 2^h and Feb. 23. 4^h, and the results were - 3'',76 and - 3'',34, the mean of which is used from Feb. 18.

TRANSITS OBSERVED IN THE YEAR 1842.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Feb. 18	ω Aurigæ.....	43,3	0,5	17,3	34,5	51,4	8,4	4. 48. 25,5		4. 47. 34,41	C.
	Σ 644.....	49,1	5,9	22,5	39,8	56,6	13,4	4. 59. 30,3		4. 58. 39,66	C.
	Rigel.....	17,2	30,9	44,3	58,1	11,6	25,3	5. 6. 38,8		5. 5. 58,03	C.
	β Tauri.....	34,5	49,8	4,8	20,4	35,7	50,9	5. 16. 6,4		5. 15. 20,35	C.
	δ Ursæ Min. SP... 10.29,8	14.17,4	18. 1,0	21.47,0	25.37,2	29.19,9	6. 33. 7,3	6. 33. 7,3		6. 21. 48,51	G.
	(a) δ Ursæ Minoris... ..	14.25,8	18. 9,8	21.56,6	25.46,0	29.30,0	18. 33. 19,6	18. 33. 19,6	- 1. 53,09	18. 21. 58,21	G.
Feb. 19	α Aquilæ.....	22,7	36,4	49,8	3,7	17,2	30,6	19. 42. 44,3		19. 42. 3,53	C.
	(b) \odot 1 L.....	29,3	42,8	56,5	10,6	24,3	38,0	22. 8. 51,6		22. 8. 10,44	C.
	\odot 2 L.....	41,5	55,4	9,0	22,9	36,7	50,4	22. 11. 4,2		22. 10. 22,87	C.
	(c) α Pegasi.....	24,7	38,3	52,4	6,4	20,2	22. 56. 34,0	22. 56. 34,0	- 6,95	22. 55. 52,38	C.
	(d) α Andromedæ.....	27,0	42,2	57,4	12,7	28,1	43,2	23. 59. 58,6		23. 59. 12,74	C.
	(e) Polaris.....	36. 4,0	52.49,6	1.30,0	18.14,0	1. 26. 38,5	1. 58. 0,1	1. 58. 0,1	- 1. 40,27	1. 1. 22,95	C.
	α Arietis.....	32,5	47,1	1,5	16,4	31,0	45,4	2. 49. 54,4		2. 49. 11,17	C.
	ϵ Arietis.....	28,0	42,4	56,6	11,2	25,6	40,0	2. 53. 41,7		2. 53. 1,35	C.
	α Ceti.....	20,9	34,4	47,8	1,4	14,9	28,4	4. 16. 35,8		4. 15. 52,11	C.
	(f) ν^1 Tauri.....	8,5	23,0	37,3	52,1	6,8	21,3	4. 26. 34,2		4. 25. 52,02	C.
	(g) Aldebaran.....	24,1	37,7	51,9	6,2	20,1	4. 32. 30,5	4. 32. 30,5	- 7,01	4. 31. 46,62	C.
	τ Tauri.....	2,9	17,4	31,7	46,6	1,4	15,8	4. 48. 24,2		4. 47. 33,34	C.
	ω Aurigæ.....	42,4	59,4	16,2	33,5	50,4	7,3	5. 0. 53,2		5. 0. 6,76	C.
	ν^1 1 L.....	20,4	35,8	51,2	6,8	22,3	37,6	5. 6. 37,6		5. 5. 56,96	C.
	Rigel.....	16,2	29,7	43,2	57,1	10,7	24,2	5. 16. 5,3		5. 15. 19,40	C.
	β Tauri.....	33,5	48,7	4,1	19,5	34,7	50,0	5. 22. 38,2		5. 21. 57,66	C.
	(h) 33 Orionis.....	17,3	30,8	44,0	57,4	11,3	24,6	5. 43. 10,4		5. 42. 24,90	C.
	C Tauri.....	39,4	54,5	9,5	25,0	40,3	55,2	5. 46. 18,5		5. 45. 37,75	C.
	α Orionis.....	57,1	10,5	24,1	37,8	51,4	4,8				
	Σ 535.....	50,1	3,8	17,4	31,5	44,9	58,7	4. 15. 12,3		4. 14. 31,24	C.
	(h) Aldebaran.....	7,5	21,8	35,5	49,8	3,8	17,7	4. 27. 31,7		4. 26. 49,69	C.
	Σ 577.....	44,4	1,5	18,0	35,1	52,1	9,1	4. 32. 25,9		4. 31. 35,16	C.
	ω Aurigæ.....	40,1	57,3	14,0	31,2	48,3	5,0	4. 49. 22,1		4. 48. 31,14	C.
	Σ 644.....	45,7	2,7	19,4	36,4	53,5	10,3	5. 0. 27,1		4. 59. 36,44	C.
	(i) Rigel.....	14,1	27,4	40,8	54,7	8,5	22,1	5. 7. 35,6		5. 6. 54,74	C.
	Σ 694.....	33,4	48,2	2,8	17,8	32,7	47,5	5. 15. 2,3		5. 14. 17,82	C.
	118 Tauri. f.....	47,4	2,3	16,8	32,0	46,8	1,5	5. 20. 16,4		5. 19. 31,88	C.
	(k) 32 Orionis.....	55,0	8,6	21,8	35,6	49,2	2,7	5. 22. 58,6	- 13,52	5. 22. 18,16	C.
	α Orionis.....	27,0	41,8	56,4	11,5	26,6	41,2	5. 47. 16,4		5. 46. 35,61	C.
	(h) ϵ Geminorum.....	59,8	14,4	28,5	43,1	57,3	11,8	6. 34. 56,3		6. 34. 11,54	C.
	ζ Geminorum.....	40,8	56,3	10,8	26,3	41,3	56,5	6. 55. 26,4		6. 54. 43,04	C.
	(l) ν^1 1 L.....	24,5	39,7	54,6	10,0	25,4	40,3	7. 12. 11,7		7. 11. 26,25	C.
	ν Geminorum.....	51,7	7,2	22,1	37,7	53,1	8,2	7. 26. 55,4		7. 26. 9,98	C.
	Pollux.....	36,0	51,1	5,7	20,9	36,0	50,7	7. 36. 23,5		7. 35. 37,65	C.
	ω^1 Cancri.....	25,2	39,5	53,3	7,8	22,1	36,1	7. 52. 5,8		7. 51. 20,88	C.
	ζ Cancri.....	22,8	37,7	52,2	7,4	22,2	36,7	8. 3. 50,2		8. 3. 7,75	C.
	λ Cancri.....	30,2	45,0	59,7	14,6	29,6	44,4	8. 11. 51,5		8. 11. 7,22	C.
	ν^1 Cancri. p.....	8,2	21,8	35,6	49,5	3,3	17,0	8. 17. 59,2		8. 17. 14,67	C.
	α^2 Cancri.....	56,5	11,2	25,4	40,1	54,5	8,8	8. 50. 30,9		8. 49. 49,48	C.
	* N.P.D. 68°. 22'.	58,1	12,6	26,6	41,5	55,9	10,4	8. 59. 23,4		8. 58. 39,98	C.
	* N.P.D. 68°. 41'.	52,6	7,1	21,2	36,0	50,5	4,8	9. 4. 24,7		9. 3. 41,40	C.
	* N.P.D. 68°. 31'.	7,8	22,3	36,5	51,0	5,6	19,9	9. 10. 19,5		9. 9. 35,96	C.
	(m) * N.P.D. 68°. 58'.	7,4	20,8	34,2	48,1	1,6	15,2	9. 15. 34,5		9. 14. 51,08	C.
	α Hydræ.....							9. 20. 28,8		9. 19. 48,02	C.
Feb. 22	(n) \odot 1 L.....	54,9	8,6	22,1	35,9	49,6	3,4	22. 21. 17,1		22. 20. 35,94	B.
	\odot 2 L.....	7,0	20,6	34,1	47,9	2,0	15,4	22. 23. 28,9		22. 22. 47,99	B.
Feb. 24	(o) α Hydræ.....	3,9	17,7	31,1	45,2	59,1	12,1	9. 20. 25,7		9. 19. 44,97	B.
	14 Leonis.....	57,4	11,1	24,7	38,5	52,2	6,1	9. 33. 19,8		9. 32. 38,55	B.
	Regulus.....	11,5	25,1	39,1	52,8	6,8	20,7	10. 0. 34,1		9. 59. 52,87	B.
	ν^1 1 L.....	24,7	39,0	52,8	7,0	21,0	34,7	10. 16. 49,0		10. 16. 6,89	B.
	(p) ν^1 2 L.....	46,1	0,1	14,1	27,9	42,1	55,5	10. 19. 9,3		10. 18. 27,87	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.
From Feb. 24 EAST. ABCDEFG.

(a) Extremely faint: some wires little better than guesses. (b) Pretty good and steady limbs. (c) Faint and unsteady. (d) Unsteady.
(e) Wires I and IV doubtful on account of clouds. (f) Wire VII was set down 36,3. (g) Flaring, and somewhat hurried. (h) Unsatis-
factory. (i) Blazing. (k) Hurried: not good. (l) Great tremor. (m) Wire VII. was set down 35,5. (n) Flaring.
The apparent R.A. of center has been increased by 0,28 for difference of personal equation between C and B. (o) Hazy and faint. (p) The
apparent R.A. of 2 L. has been corrected by +0,12 for defect of illumination.

CALCULATION OF APPARENT RIGHT ASCENSIONS.

9

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
+ 0,10	- 3,55	+ 3,11	34,20			1,13	60,26	4 . 48 . 34,69	- 2,16	ω Aurigæ.
			39,45					4 . 59 . 39,95	- 2,24	Σ 644.
			58,10	58,62	60,52			5 . 6 . 58,60	- 1,73	Rigel.
			20,22	20,70	60,48			5 . 16 . 20,73	- 2,21	β Tauri.
			53,78	54,39	60,61			18 . 22 . 54,34	+ 22,43	δ Ursæ Min. SP.
			53,08	54,51	61,43	1,05	60,25	18 . 22 . 54,13	+ 22,31	δ Ursæ Minoris.
			3,52	4,69	61,17			19 . 43 . 4,63	- 0,21	α Aquilæ.
			} 16,75					22 . 10 . 17,97		\odot 's center.
			52,33	53,72	61,39			22 . 56 . 53,58	- 0,01	α Pegasi.
			12,61	13,98	61,37			0 . 0 . 13,91	0,00	α Andromedæ.
			11,25	7,57	56,32		61,30	1 . 2 . 12,59	+ 35,94	Polaris.
			16,19	17,55	61,36			1 . 58 . 17,57	- 0,74	α Arietis.
			11,08					2 . 50 . 12,50	- 1,07	ϵ Arietis.
			1,36	2,74	61,38			2 . 54 . 2,79	- 1,07	α Ceti.
			52,02					4 . 16 . 53,51	- 1,69	ν^1 Tauri.
			51,96	53,36	61,40			4 . 26 . 53,45	- 1,71	Aldebaran.
			46,52					4 . 32 . 48,02	- 1,80	τ Tauri.
			33,13					4 . 48 . 34,64	- 2,13	ω Aurigæ.
			6,63					5 . 1 . 8,15		γ 1 L.
			57,03	58,60	61,57			5 . 6 . 58,55	- 1,71	Rigel.
			19,27	20,68	61,41			5 . 16 . 20,80	- 2,19	β Tauri.
			57,67					5 . 22 . 59,21	- 1,90	β 3 Orionis.
			24,77					5 . 43 . 26,32	- 2,36	C Tauri.
			37,74	39,26	61,52			5 . 46 . 39,29	- 2,07	α Orionis.
			31,21			1,07	3,47	4 . 14 . 34,87	- 1,55	Σ 535.
			49,63	53,33	3,70			4 . 26 . 53,30	- 1,68	Aldebaran.
			34,95					4 . 31 . 38,62	- 1,95	Σ 577.
			30,93					4 . 48 . 34,61	- 2,09	ω Aurigæ.
			36,23					4 . 59 . 39,92	- 2,18	Σ 644.
			54,81	58,57	3,76			5 . 6 . 58,51	- 1,68	Rigel.
			17,71					5 . 14 . 21,41	- 2,08	Σ 694.
			31,77					5 . 19 . 35,48	- 2,12	118 Tauri. f.
			18,15					5 . 22 . 21,86	- 1,89	β 32 Orionis.
			35,60	39,23	3,63			5 . 46 . 39,33	- 2,04	α Orionis.
			11,43					6 . 34 . 15,19	- 2,57	ϵ Geminorum.
			42,95					6 . 54 . 46,73	- 2,59	ζ Geminorum.
			26,15					7 . 11 . 29,94		γ 1 L.
			9,85					7 . 26 . 13,65	- 2,87	ν Geminorum.
			37,50	41,32	3,82			7 . 35 . 41,31	- 2,93	Pollux.
			20,75					7 . 51 . 24,57	- 2,93	ω^1 Cancri.
			7,67					8 . 3 . 11,50	- 2,79	ζ Cancri.
			7,11					8 . 11 . 10,95	- 2,96	λ Cancri.
			14,56					8 . 17 . 18,40	- 2,98	ν^1 Cancri. p.
			49,45					8 . 49 . 53,31	- 2,80	α^2 Cancri.
			39,89					8 . 58 . 43,76	- 2,98	* N.P.D. 68° 22'.
			41,31					9 . 3 . 45,19	- 2,98	* N.P.D. 68° 41'.
			35,87					9 . 9 . 39,75	- 2,99	* N.P.D. 68° 31'.
			50,99					9 . 14 . 54,87	- 2,99	* N.P.D. 68° 58'.
			48,09	51,99	3,90			9 . 19 . 51,98	- 2,58	α Hydræ.
			} 42,06					22 . 21 . 46,81		\odot 's center.
- 0,46	- 2,34	+ 3,23	45,05	51,99	6,94	0,94	6,64			α Hydræ.
			38,55					9 . 32 . 45,56	- 2,82	14 Leonis.
			52,86	59,97	7,11					Regulus.
			6,91					10 . 16 . 13,95		γ 1 L.
			27,89					10 . 18 . 35,05		γ 2 L.

Feb. 21. 4^h, the clock was put forward 1^m.

Feb. 23. 4^h, the Transit was reversed and the Error of Collimation determined.

Feb. 23. 5^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Feb. 24	(a) χ Leonis.....	6,8	20,2	33,7	48,0	1,5	15,0	10.57.28,2		10.56.47,63	B.
Feb. 25	Σ 535.....	45,7	59,4	13,0	26,8	40,9	54,0	4.15.8,1		4.14.26,84	B.
	(b) Aldebaran.....	3,8	18,0	31,4	45,3	59,8	13,3	4.27.27,4		4.26.45,57	B.
	(c) Σ 577.....	40,1	57,1	13,8	31,0	48,1	4,4	4.32.21,3		4.31.30,83	B.
	Σ 644.....	41,1	58,3	15,0	32,0	49,0	6,0	5.0.22,7		4.59.32,01	B.
	Rigel.....	9,8	23,2	37,1	50,4	4,1	18,1	5.7.31,3		5.6.50,57	B.
	Σ 694.....	29,0	44,0	58,3	13,2	28,2	43,0	5.14.57,9		5.14.13,37	B.
	118 Tauri.....	43,0	58,0	12,6	27,3	42,4	56,9	5.20.12,1		5.19.27,47	B.
	33 Orionis.....	10,6	24,1	38,0	51,2	4,8	18,1	5.23.31,3		5.22.51,15	B.
	Σ 757.....	...	29,1	42,3	55,9	9,1	22,6	5.30.36,1	-6,73	5.29.55,79	B.
	52 Orionis.....	44,1	58,1	11,3	25,1	38,9	52,1	5.40.5,7		5.39.25,04	B.
	15 Geminorum....	32,9	47,1	1,8	16,0	30,7	44,8	6.18.59,2		6.18.16,07	B.
	* N.P.D. 69°. 7'...	...	28,0	42,0	55,9	...	25,3	6.21.40,0	-5,73	6.20.56,51	B.
	Σ 1037.....	8,2	23,4	38,7	53,9	9,0	24,1	7.3.39,1		7.2.53,77	B.
	Σ 1116.....	56,9	10,9	24,2	38,1	52,0	6,0	7.26.19,6		7.25.38,25	B.
	Piazzi VII. 170...	57,1	10,9	24,1	37,8	51,3	4,8	7.32.18,2		7.31.37,75	B.
	Pollux.....	47,9	2,9	18,0	33,3	49,1	4,1	7.36.19,3		7.35.33,51	B.
	α Hydræ.....	3,1	17,0	30,1	44,0	58,0	11,2	9.20.25,1		9.19.44,07	B.
	Regulus.....	11,0	24,3	38,0	51,8	6,0	19,3	10.0.33,2		9.59.51,94	B.
	48 Leonis.....	47,2	0,9	14,1	27,7	41,4	54,7	10.27.9,1		10.26.27,87	B.
	χ Leonis.....	5,6	19,0	32,9	46,1	0,1	13,7	10.57.26,9		10.56.46,33	B.
	(d) γ 2 L.....	34,5	48,1	2,2	16,0	30,0	43,6	11.15.57,9		11.15.16,04	B.
	ν Leonis.....	...	19,3	33,0	46,2	59,9	13,2	11.29.26,4	-6,73	11.28.46,27	B.
	β Virginis.....	41,9	55,7	9,1	22,2	36,1	48,9	11.43.2,9		11.42.22,40	B.
Feb. 26	(e) \odot 1 L.....	0,6	14,2	28,1	41,7	55,4	9,2	22.36.22,9		22.35.41,73	B.
	\odot 2 L.....	12,2	26,1	39,4	53,1	7,0	20,3	22.38.34,1		22.37.53,17	B.
	2 Camelopardi....	14,9	37,1	59,4	22,0	44,8	6,9	4.28.29,3		4.27.22,05	B.
	Σ 1116.....	56,1	10,1	23,4	37,1	51,1	5,0	7.26.18,5		7.25.37,33	B.
	Piazzi VII. 170...	56,2	9,6	23,1	36,6	50,5	4,1	7.32.17,3		7.31.36,77	B.
	11 Cancri.....	17,9	33,1	48,0	3,4	19,1	34,0	7.59.49,2		7.59.3,53	B.
	A.S.C. 1044.....	40,0	53,3	7,0	20,7	34,2	47,8	8.28.1,3		8.27.20,61	B.
	ϵ Hydræ.....	37,2	50,9	4,2	18,1	32,0	45,1	8.38.59,0		8.38.18,07	B.
	ι Ursæ Majoris...	16,1	36,3	56,5	17,0	37,4	58,1	8.49.18,1		8.48.17,07	B.
	α Hydræ.....	2,2	16,1	29,3	42,9	56,8	10,4	9.20.24,1		9.19.43,11	B.
	Regulus.....	10,1	23,4	37,0	51,1	5,0	18,7	10.0.32,4		9.59.51,10	B.
	48 Leonis.....	46,1	0,1	13,5	26,9	40,9	54,1	10.27.7,7		10.26.27,05	B.
	ν Leonis.....	5,0	17,9	31,8	45,1	58,9	12,1	11.29.25,6		11.28.45,20	B.
	β Virginis.....	41,0	54,5	8,1	21,5	35,1	48,2	11.43.2,1		11.42.21,50	B.
	(f) γ 2 L.....	18,1	31,9	45,7	59,8	14,0	28,0	12.11.41,6		12.10.59,88	B.
	q Virginis.....	50,4	4,1	17,6	31,1	45,1	58,3	12.26.12,1		12.25.31,24	B.
	ψ Virginis.....	20,9	35,1	48,2	2,1	15,7	29,0	12.46.43,1		12.46.2,01	B.
Feb. 28	(g) \odot 1 L.....	30,7	44,1	57,7	11,4	25,2	38,6	22.43.52,4		22.43.11,44	B.
	\odot 2 L.....	42,1	55,5	9,0	22,8	36,5	50,0	22.46.3,6		22.45.22,78	B.
Mar. 1	2 Camelopardi....	11,7	34,2	56,3	19,2	42,1	4,1	4.28.26,2		4.27.19,12	B.
	Σ 652.....	46,3	59,8	13,1	26,7	40,3	53,7	5.4.7,0		5.3.26,70	B.
	Σ 694.....	25,1	40,1	55,0	9,6	24,9	39,4	5.14.54,1		5.14.9,75	B.
	118 Tauri.....	39,3	54,1	8,9	23,9	38,8	53,6	5.20.9,0		5.19.23,94	B.
	32 Orionis.....	30,1	43,2	56,6	10,2	23,7	37,1	5.22.50,8		5.22.10,24	B.
	λ Orionis.....	...	49,3	3,1	16,7	30,6	44,1	5.26.58,1	-6,83	5.26.16,82	B.
	Σ 757.....	11,5	25,0	38,5	51,9	6,0	19,2	5.30.32,5		5.29.52,08	B.
	52 Orionis.....	41,0	54,1	7,7	21,1	35,1	48,3	5.40.1,9		5.39.21,31	B.
	(h) α Orionis.....	47,2	0,7	14,1	27,7	41,3	55,0	5.47.8,3		5.46.27,76	B.
	Σ 840.....	51,8	5,5	19,0	32,9	46,8	0,2	5.58.14,1		5.57.32,90	B.
	(i) Σ 848.....	...	...	...	23,2	37,1	50,9	6.0.5,0	-20,82	5.59.23,23	B.
	δ Ursæ Minoris SP.	11.21,7	15.9,3	18.51,5	22.41,2	26.25,6	30.12,8	6.33.58,2		6.22.40,04	B.
	Σ 1037.....	5,1	19,9	35,0	50,2	5,7	20,8	7.3.36,1		7.2.50,40	B.
	Σ 1083.....	22,9	37,5	51,9	6,1	21,0	35,1	7.16.49,7		7.16.6,32	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

(a) Hazy and faint.

(b) In day-light: wires not clearly seen.

(c) Very faint.

(d) Dazzling.

(e) Cloudy.

(g) Unsteady.

(i) This is probably the brightest of the four stars.

(f) Much waving.

(h) Flaming.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.						
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.							
- 0,46	- 2,34	+ 3,23	47,64			0,94	6,64	10 . 56 . 54,71	- 2,74	χ Leonis.						
			26,84			0,92	7,58	4 . 14 . 34,58	- 1,49	Σ 535.						
			45,54	53,26	7,72			4 . 26 . 53,29	- 1,61	Aldebaran.						
			30,67					4 . 31 . 38,42	- 1,87	Σ 577.						
			31,85					4 . 59 . 39,62	- 2,10	Σ 644.						
			50,65	58,51	7,86			5 . 6 . 58,43	- 1,62	Rigel.						
			13,30					5 . 14 . 21,08	- 2,02	Σ 694.						
			27,40					5 . 19 . 35,18	- 2,05	118 Tauri.						
			51,17					5 . 22 . 58,96	- 1,83	33 Orionis.						
			55,83					5 . 30 . 3,62	- 1,81	Σ 757.						
			25,06					5 . 39 . 32,86	- 1,93	52 Orionis.						
			16,02					6 . 18 . 23,84	- 2,35	15 Geminorum.						
			56,46					6 . 21 . 4,28	- 2,37	* N.P.D. 69°. 7'.						
			53,68					7 . 3 . 1,53	- 2,73	Σ 1037.						
			38,24					7 . 25 . 46,10	- 2,53	Σ 1116.						
			37,77					7 . 31 . 45,64	- 2,45	Piazzi VII. 170.						
			33,42	41,28	7,86			7 . 35 . 41,29	- 2,89	Pollux.						
			44,15	51,98	7,83			9 . 19 . 52,09	- 2,57	α Hydræ.						
			51,93	59,97	8,04			9 . 59 . 59,89	- 2,86	Regulus.						
			27,88					10 . 26 . 35,86	- 2,79	48 Leonis.						
			46,34					10 . 56 . 54,34	- 2,75	χ Leonis.						
			16,08					11 . 15 . 24,09		δ 2 L.						
			46,31					11 . 28 . 54,33	- 2,65	ν Leonis.						
			22,43					11 . 42 . 30,46	- 2,67	β Virginis.						
	- 2,65			}	47,52		0,90	7,59	22 . 36 . 55,96		☉'s center.					
					21,71			8,49	4 . 27 . 30,37	- 2,08	2 Camelopardi.					
					37,30				7 . 25 . 46,07	- 2,52	Σ 1116.					
					36,78				7 . 31 . 45,55	- 2,44	Piazzi VII. 170.					
					3,42				7 . 59 . 12,21	- 2,81	11 Cancr.					
					20,61				8 . 27 . 29,42	- 2,60	A.S.C. 1044.					
					18,07				8 . 38 . 26,88	- 2,68	ε Hydræ.					
					16,77				8 . 48 . 25,59	- 3,93	ι Ursæ Majoris.					
					43,18	51,98	8,80				α Hydræ.					
					51,07	59,97	8,90				Regulus.					
					27,04				10 . 26 . 35,92	- 2,80	48 Leonis.					
					45,23				11 . 28 . 54,15	- 2,66	ν Leonis.					
					21,51				11 . 42 . 30,44	- 2,69	β Virginis.					
					59,95				12 . 11 . 8,90		δ 2 L.					
					31,31				12 . 25 . 40,27	- 2,51	q Virginis.					
					2,08				12 . 46 . 11,05	- 2,47	ψ Virginis.					
								}	17,18		1,02	9,02	22 . 44 . 27,17		☉'s center.	
									18,78			11,06	4 . 27 . 30,03	- 1,99	2 Camelopardi.	
									26,73				5 . 3 . 38,00	- 1,62	Σ 652.	
									9,66				5 . 14 . 20,94	- 1,95	Σ 694.	
									23,85				5 . 19 . 35,14	- 1,98	118 Tauri.	
									10,25				5 . 22 . 21,54	- 1,76	32 Orionis.	
									16,81				5 . 26 . 28,10	- 1,83	λ Orionis.	
									52,11				5 . 30 . 3,40	- 1,75	Σ 757.	
									21,32				5 . 39 . 32,62	- 1,87	52 Orionis.	
									27,76	39,11	11,35		5 . 46 . 39,07	- 1,92	α Orionis.	
									32,88				5 . 57 . 44,19	- 2,03	Σ 840.	
									23,20				5 . 59 . 34,51	- 2,08	Σ 848.	
									45,10	57,69	12,59		18 . 22 . 56,43	+ 19,13	δ Ursæ Min. SP.	
									50,29				7 . 3 . 1,65	- 2,68	Σ 1037.	
									6,25				7 . 16 . 17,62	- 2,60	Σ 1083.	

Feb. 28. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Mar. 1	Σ 1116.....	53,1	7,1	20,8	34,4	48,5	2,1	7.26.15,9		7.25.34,56	B.
	Piazzi VII. 170...	53,7	7,1	20,6	33,9	47,9	1,2	7.32.14,9		7.31.34,19	B.
	Pollux.....	44,0	59,2	14,4	30,2	45,2	0,4	7.36.16,0		7.35.29,91	B.
	5 Argûs.....	42,1	55,9	9,4	23,2	37,2	51,1	7.41.5,0		7.40.23,41	B.
	14 Canis Minoris..	19,8	32,8	46,2	59,7	13,8	27,1	7.50.40,6		7.50.0,00	B.
	A.S.C. 985.	13,1	26,6	40,1	53,3	7,1	20,3	7.54.34,1		7.53.53,51	B.
	11 Cancri.....	15,1	30,2	45,1	0,8	16,2	31,1	7.59.46,4		7.59.0,70	B.
	σ ⁴ Cancri.....	46,0	1,7	17,7	34,1	50,0	5,9	8.52.22,0		8.51.33,91	B.
	α Hydræ.....	59,7	13,3	27,1	40,6	54,2	8,2	9.20.21,1		9.19.40,60	B.
	Σ 1379.....	3,1	16,6	30,1	43,8	58,0	11,2	9.37.25,0		9.36.43,97	B.
	Regulus.....	7,1	21,1	34,9	48,3	2,2	16,1	10.0.29,8		9.59.48,50	B.
Mar. 3	(a) δ Ursæ Min. SP...	11.21,2	15.9,2	18.50,7	22.42,3	26.27,5	30.11,8	6.33.57,4		6.22.40,01	B.
	(b) Σ 1037.....	3,1	18,0	33,0	48,1	3,6	18,3	7.3.33,5		7.2.48,23	B.
Mar. 4	(c) ε ² Ophiuchi.....	49,0	3,6	18,2	32,7	48,0	...	17.22.17,1	+ 4,90	17.21.33,00	B.
	α Ophiuchi.....	40,7	55,0	8,3	22,2	36,3	49,5	17.28.3,9		17.27.22,27	B.
	(d) 2 L.....	3,3	19,0	34,3	50,1	5,7	20,9	17.54.37,0		17.53.50,04	B.
	(c) μ ¹ Sagittarii.....	21,6	36,0	50,4	5,0	19,6	34,0	18.4.48,3		18.4.4,99	B.
	(e) δ Ursæ Minoris...	11.30,7	15.16,8	...	22.48,2	26.37,6	30.20,4	18.34.8,2	- 37,89	18.22.49,09	B.
	(f) Jupiter 1 L.....	15,2	...	45,0	...	15,0	...	19.11.43,0	- 0,02	19.10.59,53	B.
	Jupiter 2 L.....	...	32,6	...	1,9	...	30,8	19.11.	+ 0,03	19.11.1,80	B.
	α Aquilæ.....	9,0	22,4	36,0	49,9	3,7	17,0	19.43.30,5		19.42.49,79	B.
	(c) β Aquilæ.....	38,0	51,2	4,6	18,1	32,0	45,3	19.47.58,8		19.47.18,29	B.
Mar. 5	Σ 652.....	41,9	55,6	9,0	22,4	36,1	49,1	5.4.3,1		5.3.22,45	B.
	β Tauri.....	18,9	34,1	49,4	5,1	20,3	35,1	5.16.51,2		5.16.4,87	B.
	33 Orionis.....	3,1	16,2	29,7	43,1	57,1	10,3	5.23.23,9		5.22.43,34	B.
	λ Orionis.....	31,3	44,7	59,0	12,1	26,2	39,8	5.26.53,3		5.26.12,34	B.
	52 Orionis.....	36,9	50,1	3,4	16,8	30,7	44,1	5.39.57,6		5.39.17,09	B.
	α Orionis.....	42,6	56,1	10,0	23,2	37,2	50,3	5.47.4,2		5.46.23,37	B.
	Σ 840.....	47,5	0,9	14,9	28,9	42,4	56,0	5.58.9,7		5.57.28,62	B.
	Σ 848.....	...	...	...	...	33,1	46,7	6.0.0,7	- 27,78	5.59.19,05	B.
	(c) 15 Geminorum...	25,1	...	54,1	8,2	22,9	36,8	6.18.51,2	- 4,80	6.18.8,25	B.
	δ Ursæ Minoris SP.	11.19,7	15.6,8	...	22.38,4	26.27,2	30.10,4	6.33.55,2	- 38,09	6.22.38,18	B.
	(g) Σ 1037.....	...	...	31,0	45,7	1,2	16,0	7.3.31,1	- 15,17	7.2.45,83	B.
	(g) Σ 1083.....	...	...	47,2	2,1	17,0	30,8	7.16.45,3	- 14,39	7.16.2,09	B.
	Castor.....	30,2	46,0	1,8	17,9	34,1	49,8	7.25.5,6		7.24.17,92	B.
	Pollux.....	39,9	55,1	10,2	25,5	41,1	55,9	7.36.11,6		7.35.25,62	B.
	14 Canis Minoris..	15,4	28,9	42,2	55,6	9,1	22,1	7.50.36,1		7.49.55,63	B.
	A.S.C. 985.....	8,8	22,2	35,1	48,8	3,1	16,1	7.54.29,6		7.53.49,10	B.
	11 Cancri.....	10,7	26,1	41,1	56,4	11,9	27,0	7.59.42,0		7.58.56,46	B.
	ι Ursæ Majoris...	9,0	29,1	49,3	10,2	30,7	50,9	8.49.11,1		8.48.10,04	B.
	21 Ursæ Majoris..	2,7	26,2	49,2	13,1	36,3	59,1	9.15.22,8		9.14.12,77	B.
	α Hydræ.....	55,1	8,9	22,2	36,1	49,8	3,2	9.20.17,1		9.19.36,06	B.
	Σ 1379.....	58,6	12,1	26,0	39,2	53,0	6,9	9.37.20,3		9.36.39,45	B.
	Regulus.....	2,6	16,9	30,2	44,1	58,2	11,8	10.0.25,9		9.59.44,24	B.
Mar. 6	(h) Castor.....	29,1	45,1	1,0	16,8	32,9	48,9	7.25.4,6		7.24.16,92	B.
	Procyon.....	7,3	20,5	33,9	47,3	1,1	14,2	7.31.27,7		7.30.47,43	B.
	Pollux.....	38,8	54,1	9,0	24,3	39,9	55,1	7.36.10,3		7.35.24,50	B.
Mar. 7	(c) δ Ursæ Minoris...	...	...	...	22.46,5	26.34,4	30.19,8	18.34.6,2	- 5.39,54	18.22.47,19	B.
	(i) ⊙ 1 L.....	28,0	41,4	55,0	8,7	22,4	35,6	23.9.49,1		23.9.8,60	B.
Mar. 8	⊙ 2 L.....	38,1	51,9	5,1	18,5	32,4	46,0	23.11.59,7		23.11.18,82	B.
	(k) ⊙ 1 L.....	8,9	22,1	35,5	49,2	3,0	16,5	23.13.30,1		23.12.49,33	B.
Mar. 8	⊙ 2 L.....	18,9	32,3	46,0	59,6	13,1	26,5	23.15.40,2		23.14.59,52	B.
	α Andromedæ....	9,5	24,9	39,9	55,2	10,8	25,9	0.0.41,0		23.59.55,31	B.
	(i) δ Ursæ Minoris...	11.26,6	15.13,5	18.57,3	22.43,8	26.34,4	30.16,4	18.34.3,8		18.22.45,11	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Very unsteady.

(b) Wind loud.

(g) Very doubtful on account of faintness.

(c) Very faint.

(d) Unsteady.

(h) The noted times have been diminished 5^s.

(e) Faint and unsteady.

(i) Hazy.

(f) Exceedingly faint and doubtful.

(k) Confused light and great motion.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.	
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.		
- 0,46	- 2,65	+ 3,23	34,53			1,02	11,06	7.25.45,91	- 2,49	Σ 1116.	
			34,20					7.31.45,58	- 2,41	Piazzi VII. 170.	
			29,79	41,24	11,45			7.35.41,17	- 2,85	Pollux.	
			23,50					7.40.34,89	- 2,24	5 Argûs.	
			0,01					7.50.11,40	- 2,44	14 Canis Minoris.	
			53,52					7.54.4,92	- 2,46	A.S.C. 985.	
			0,59					7.59.11,99	- 2,94	11 Cancri.	
			33,75					8.51.45,19	- 3,25	σ ⁴ Cancri.	
			40,67	51,98	11,31			9.19.52,13	- 2,57	α Hydræ.	
			43,96					9.36.55,43	- 2,81	Σ 1379.	
			48,47	59,99	11,52			9.59.59,95	- 2,88	Regulus.	
			45,07	58,31	13,24	1,06	13,31	18.22.58,66	+ 18,51	δ Ursæ Min. SP.	
			48,12					7.3.1,74	- 2,64	Σ 1037.	
	- 2,96		33,15				14,37	17.21.48,29	- 1,57	ε ² Ophiuchi.	
			22,22	37,30	15,08			17.27.37,36	- 1,16	α Ophiuchi.	
			50,21					17.54.5,37		μ ² L.	
			5,12					18.4.20,29	- 1,32	μ ¹ Sagittarii.	
			43,88	58,75	14,87			18.22.59,06	+ 18,07	δ Ursæ Minoris.	
			0,81					19.11.16,03		Jupiter's center.	
			49,76	5,01	15,25			19.43.5,00	- 0,53	α Aquilæ.	
			18,28	33,69	15,41			19.47.33,53	- 0,54	β Aquilæ.	
			22,47				15,43	5.3.38,12	- 1,56	Σ 652.	
			4,74	20,44	15,70			5.16.20,40	- 1,95	β Tauri.	
			43,34					5.22.59,01	- 1,68	33 Orionis.	
			12,31					5.26.27,98	- 1,77	λ Orionis.	
			17,08					5.39.32,76	- 1,81	52 Orionis.	
			23,36	39,05	15,69			5.46.39,05	- 1,86	α Orionis.	
			28,59					5.57.44,28	- 1,97	Σ 840.	
			19,00					5.59.34,70	- 2,02	Σ 848.	
			8,16					6.18.23,87	- 2,22	15 Geminorum.	
			43,50	58,91	15,41			18.22.59,21	+ 17,91	δ Ursæ Min. SP.	
			45,70					7.3.1,44	- 2,62	Σ 1037.	
			2,00					7.16.17,75	- 2,55	Σ 1083.	
			17,75	33,49	15,74			7.24.33,51	- 2,84	Castor.	
			25,48	41,19	15,71			7.35.41,25	- 2,80	Pollux.	
			55,63					7.50.11,41	- 2,39	14 Canis Minoris.	
			49,10					7.54.4,88	- 2,41	A.S.C. 985.	
			56,33					7.59.12,11	- 2,89	11 Cancri.	
			9,71					8.48.25,53	- 3,87	ι Ursæ Majoris.	
			12,37					9.14.28,21	- 4,41	21 Ursæ Majoris.	
			36,12	51,96	15,84			9.19.51,96	- 2,55	α Hydræ.	
			39,42					9.36.55,27	- 2,81	Σ 1379.	
			44,19	59,99	15,80			10.0.0,06	- 2,88	Regulus.	
	+ 3,09	16,74	33,48	16,74	1,01	16,41	7.24.33,46	- 2,83	Castor.		
		47,41	4,05	16,64			7.31.4,14	- 2,34	Procyon.		
		24,35	41,17	16,82			7.35.41,08	- 2,78	Pollux.		
		42,06	59,35	17,29			18.22.59,24	+ 17,47	δ Ursæ Minoris.		
		13,75					23.10.31,13		☉'s center.		
		54,47				1,05	23.14.13,20		☉'s center.		
		55,18	13,95	18,77			18,77		α Andromedæ.		
		39,98	0,00	20,02			0,89	18,84	18.22.59,50	+ 16,82	δ Ursæ Minoris.

 March 7. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Mar. 8	(a) Jupiter 1 L.....	3,7	...	33,0	...	2,1	...	19.14.31,0	-0,02	19.13.47,43	B.
	Jupiter 2 L.....	...	21,1	...	49,6	...	19,3	19.14.	+0,03	19.13.50,03	B.
	(b) α Aquilæ.....	4,7	18,3	31,8	45,3	59,3	12,7	19.43.26,4		19.42.45,50	B.
Mar. 9	(b) \odot 1 L.....	...	...	...	...	43,5	57,0	23.17.10,4	-27,11	23.16.29,86	B.
	\odot 2 L.....	59,1	12,8	26,2	39,9	...	7,1	23.19.20,4	+2,28	23.18.39,86	B.
	α Arietis.....	13,9	28,7	43,1	57,6	12,5	26,8	1.58.41,4		1.57.57,72	B.
Mar. 10	\odot 1 L.....	29,3	42,9	56,7	10,1	24,0	37,1	23.20.50,8		23.20.10,12	B.
	\odot 2 L.....	39,3	53,0	6,6	20,1	34,0	47,2	23.23. 0,9		23.22.20,15	B.
	(c) α Andromedæ....	7,7	22,9	38,1	53,5	9,1	23,9	0. 0.39,3		23.59.53,50	B.
	(b) α Arietis.....	13,0	27,4	42,1	57,0	11,7	26,1	1.58.40,8		1.57.56,87	B.
	(d) Rigel.....	57,1	10,3	23,8	37,2	51,1	4,9	5. 7.18,3		5. 6.37,53	B.
	β Tauri.....	14,0	29,1	44,5	59,7	15,2	30,3	5.16.45,8		5.15.59,80	B.
	λ Orionis.....	26,1	39,7	53,3	7,1	20,9	34,7	5.26.48,0		5.26. 7,12	B.
	Σ 757.....	2,9	16,0	29,1	42,6	56,1	9,6	5.30.23,1		5.29.42,77	B.
	α Orionis.....	37,6	51,1	4,7	18,1	31,8	45,2	5.46.58,9		5.46.18,20	B.
	Σ 840.....	42,1	56,0	9,6	23,3	37,0	50,7	5.58. 4,8		5.57.23,36	B.
	Σ 848.....	...	...	...	13,9	28,0	41,8	5.59.55,1	-20,82	5.59.13,88	B.
	15 Geminorum....	20,1	34,1	48,5	2,8	17,9	32,0	6.18.46,1		6.18. 3,07	B.
	(c) * N.P.D. 69°.5'...	...	...	13,1	28,1	42,0	56,1	6.20.10,8	-14,40	6.19.27,62	B.
	δ Ursæ Minoris SP.	11.14,6	15. 2,5	...	22.35,2	26.21,6	30. 5,8	6.33.52,7	-38,09	6.22.33,98	B.
	A.S.C. 1044.....	27,7	41,4	55,1	8,8	22,1	35,6	8.27.49,1		8.27. 8,55	B.
	(c) Σ 1263.....	32,0	50,1	8,2	26,3	44,9	3,0	8.35.21,1		8.34.26,52	B.
	ϵ Hydræ.....	25,3	38,9	52,1	6,2	19,8	33,1	8.38.47,0		8.38. 6,06	B.
	(c) Σ 1288.....	9,8	...	40,4	55,2	...	26,4	8.43.41,9	-3,04	8.42.55,70	B.
	ι Ursæ Majoris...	4,1	24,2	44,6	5,1	26,1	45,9	8.49. 6,1		8.48. 5,16	B.
	21 Ursæ Majoris..	58,1	21,2	44,3	8,1	31,2	54,1	9.15.17,7		9.14. 7,82	B.
	(f) α Hydræ.....	50,3	4,1	17,7	31,0	44,7	58,1	9.20.11,7		9.19.31,08	B.
	Σ 1379.....	53,9	8,1	21,1	34,7	48,6	2,2	9.37.15,9		9.36.34,93	B.
	(f) Regulus.....	57,9	11,7	25,1	38,8	53,1	6,7	10. 0.20,9		9.59.39,18	B.
	Σ 1426.....	17,0	30,6	44,1	57,7	11,6	25,0	10.12.38,4		10.11.57,77	B.
	Σ 1447.....	4,8	19,9	34,0	49,0	3,9	18,2	10.25.33,2		10.24.49,00	B.
Mar. 14	(g) \odot 2 L.....	15,9	29,1	42,4	56,0	9,9	23,1	23.37.36,7		23.36.56,16	B.
Mar. 17	(h) \odot 1 L.....	0,7	14,0	27,5	41,0	54,7	8,1	23.46.21,4		23.45.41,05	B.
	\odot 2 L.....	10,1	23,6	37,1	50,6	4,1	17,4	23.48.31,0		23.47.50,55	B.
Mar. 18	(i) \odot 1 L.....	38,3	51,8	5,3	18,7	32,7	46,0	23.49.59,3		23.49.18,87	B.
	\odot 2 L.....	48,0	1,4	14,8	28,3	42,1	55,2	23.52. 8,9		23.51.28,39	B.
	(k) Procyon.....	54,0	7,1	20,6	34,1	47,9	1,3	7.31.14,8		7.30.34,26	B.
	(k) Pollux.....	26,0	40,9	56,0	11,4	26,9	42,1	7.35.57,3		7.35.11,51	B.
	14 Canis Minoris..	1,1	14,6	28,0	41,6	55,1	8,4	7.50.22,0		7.49.41,54	B.
	A.S.C. 985.....	55,0	8,2	21,5	35,1	49,1	2,2	7.54.15,7		7.53.35,26	B.
	(l) 11 Cancri.....	56,7	12,1	27,2	42,1	57,7	12,7	7.59.28,0		7.58.42,35	B.
	(l) σ^4 Cancri.....	...	...	59,2	15,3	31,8	47,3	8.52. 3,9	-16,02	8.51.15,48	B.
	(m) Σ 1530.....	36,2	49,8	3,2	17,1	30,8	44,1	11.11.57,2		11.11.16,92	B.
	57 Ursæ Majoris..	13,9	31,1	48,7	6,4	24,1	41,8	11.20.59,0		11.20. 6,43	B.
	(f) A.S.C. 1364.....	12,4	26,0	39,2	53,1	6,3	19,7	11.30.33,1		11.29.52,83	B.
	β Leonis.....	51,1	5,0	19,1	32,9	47,1	1,1	11.41.15,1		11.40.33,06	B.
	(n) Polaris SP.....	35.57,3	44.23,6	52.44,5	1.15,2	9.42,8	18. 4,3	13.26.32,4		13. 1.14,30	B.
	(o) Jupiter 1 L.....	29,1	...	57,9	...	27,7	...	19.20.56,3	-0,02	19.20.12,73	B.
	Jupiter 2 L.....	...	46,2	...	14,9	...	44,3	19.20.	+0,03	19.20.15,16	B.
	α Aquilæ.....	54,1	7,7	21,3	34,8	49,1	2,2	19.43.15,9		19.42.35,01	B.
	β Aquilæ.....	23,2	36,9	50,2	3,8	17,5	30,9	19.47.44,4		19.47. 3,84	B.
Mar. 19	(b) \odot 1 L.....	16,2	29,6	43,1	56,6	10,4	23,6	23.53.37,2		23.52.56,67	B.
	\odot 2 L.....	25,3	38,8	52,2	5,9	19,9	33,1	23.55.46,8		23.55. 6,00	B.
Mar. 21	(l) Rigel.....	...	...	...	26,1	39,3	53,2	5. 7. 6,7	-20,43	5. 6.25,90	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

- (a) Faint and doubtful. (b) Cloudy and very unsteady. (c) Very faint. (d) Badly defined.
 (e) The intervals are discordant. (f) Flaring. (g) Very cloudy. This observation is worth little, not being
 accompanied by clock stars. (h) Between March 10 and 17 the Temperature rose about 6°. (i) Partially
 clouded. (k) Between clouds. (l) Cloudy. (m) Very faint. This appears to be the preceding star:
 see April 4. (n) Flaming. (o) Little better than guess, so very faint.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.		
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.			
- 0,46	- 2,96	+ 3,09	48,86			0,89	18,84	19 . 14 . 8,41		Jupiter's center.		
			45,47	5,11	19,64					α Aquilæ.		
			34,90							23 . 17 . 54,61		\odot 's center.
			57,61	17,35	19,74		19,73		α Arietis.			
			15,17			0,80	19,73	23 . 21 . 35,68		\odot 's center.		
			53,37	13,95	20,58				+ 0,03	α Andromedæ.		
			56,76	17,34	20,58		20,53		- 0,53	α Arietis.		
			37,58	58,29	20,71				- 1,40	Rigel.		
			59,67	20,35	20,68				- 1,86	β Tauri.		
			6,98					5 . 16 . 20,38	- 1,68	λ Orionis.		
			42,78					5 . 26 . 27,69	- 1,60	Σ 757.		
			18,18	38,96	20,78			5 . 30 . 3,49	- 1,77	α Orionis.		
			23,32					5 . 46 . 38,90	- 1,88	Σ 840.		
			13,82					5 . 57 . 44,05	- 1,94	Σ 848.		
			2,97					6 . 18 . 23,71	- 2,14	15 Geminorum.		
			27,52					6 . 19 . 48,26	- 2,16	* N.P.D. 69°. 5'.		
			39,19	0,53	21,34			18 . 22 . 59,93	+ 16,29	δ Ursæ Min. SP.		
			8,53					8 . 27 . 29,34	- 2,55	A.S.C. 1044.		
			26,27					8 . 34 . 47,09	- 3,47	Σ 1263.		
			6,04					8 . 38 . 26,86	- 2,59	ϵ Hydræ.		
			55,55					8 . 43 . 16,37	- 3,05	Σ 1288.		
			4,83					8 . 48 . 25,65	- 3,80	ι Ursæ Majoris.		
			7,42					9 . 14 . 28,26	- 4,35	21 Ursæ Majoris.		
			31,13	51,94	20,81			9 . 19 . 51,97	- 2,53	α Hydræ.		
			34,89					9 . 36 . 55,74	- 2,79	Σ 1379.		
			39,13	59,98	20,85			9 . 59 . 59,99	- 2,87	Regulus.		
			57,75					10 . 12 . 18,62	- 2,81	Σ 1426.		
			48,89					10 . 25 . 9,77	- 3,11	Σ 1447.		
	- 2,91	+ 3,18	56,19			1,10	23,75	23 . 37 . 21,02		\odot 2 L.		
			45,82							27,05	23 . 47 . 13,96	\odot 's center.
			23,65							28,15	23 . 50 . 52,89	\odot 's center.
			34,26	3,88	29,62					29,25	7 . 31 . 3,85	- 2,17	Procyon.
			11,38	40,99	29,61		7 . 35 . 40,98	- 2,60	Pollux.			
			41,54				7 . 50 . 11,15	- 2,23	14 Canis Minoris.			
			35,26				7 . 54 . 4,87	- 2,25	A.S.C. 985.			
			42,22					7 . 59 . 11,84	- 2,73	11 Cancri.		
			15,30					8 . 51 . 44,96	- 3,10	σ^4 Cancræ.		
			16,97					11 . 11 . 46,73	- 2,77	Σ 1530.		
			6,20					11 . 20 . 35,97	- 3,56	57 Ursæ Majoris.		
			52,86					11 . 30 . 22,64	- 2,81	A.S.C. 1364.		
			33,00	2,76	29,76			11 . 41 . 2,79	- 2,96	β Leonis.		
			25,92	56,46	30,54			1 . 1 . 55,77	+ 47,05	Polaris SP.		
			14,08			1,04	29,45	19 . 20 . 44,37		Jupiter's center.		
			34,99	5,37	30,38					α Aquilæ.		
			3,82	34,05	30,23					β Aquilæ.		
			1,36							\odot 's center.		
			- 3,23		25,95	58,09	32,14	1,05	32,09	23 . 54 . 31,85		Rigel.

 March 17. 3^h, and March 24. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Mar. 21	(a) α Orionis.....	25,6	39,1	52,6	6,3	20,2	33,3	5.46.47,0	- 2,44	5.46.63,0	B.
	(a) μ Geminorum....	10,1	24,5	...	53,9	8,7	22,9	6.13.37,3		6.12.53,79	B.
	ϵ Geminorum.....	57,7	12,9	27,3	42,1	57,4	12,2	6.34.26,9		6.33.42,35	B.
	(a) Σ 1033.....	42,1	4,3	26,0	49,0	11,6	33,6	7.2.56,2		7.1.48,98	B.
Mar. 22	(a) \odot 1 L.....	8,2	21,8	35,1	48,9	2,7	15,9	0.4.29,2	- 0,02 + 0,03	0.3.48,83	B.
	\odot 2 L.....	17,5	31,0	44,3	58,0	11,9	25,1	0.6.38,6		0.5.58,06	B.
	α Orionis.....	24,7	38,1	51,9	5,3	19,1	32,3	5.46.46,1		5.46.53,36	B.
	(b) Σ 953. sf.....	18,8	32,1	45,4	59,2	12,9	26,6	6.32.40,0		6.31.59,29	B.
	(a) Castor.....	12,2	28,1	44,0	59,9	16,0	31,6	7.24.48,1		7.23.59,99	B.
	(a) Procyon.....	49,9	3,2	17,1	30,3	44,1	57,1	7.31.11,1		7.30.30,40	B.
	(a) Pollux.....	21,6	37,0	52,0	7,4	23,1	38,1	7.35.53,5		7.35.7,53	B.
	(c) Jupiter 1 L.....	48,3	...	17,3	...	47,0	...	19.23.15,7		19.22.32,05	B.
	Jupiter 2 L.....	...	6,1	...	35,0	...	3,9	19.23.		19.22.35,03	B.
	α Aquilæ.....	50,7	4,3	17,8	31,4	45,1	58,8	19.43.12,3		19.42.31,48	B.
	(d) β Aquilæ.....	19,9	33,0	46,6	0,3	13,9	27,1	19.47.40,7		19.47.0,21	B.
Mar. 23	(a) Polaris.....	36.16,2	44.44,4	53.6,2	1.30,8	...	...	1.	+ 12.38,67 - 15,92 - 6,06	1.1.33,07	B.
	Rigel.....	42,8	56,4	10,0	23,8	37,4	50,8	5.7.4,7		5.6.23,70	B.
	β Tauri.....	0,1	15,3	30,7	46,1	1,7	16,9	5.16.32,1		5.15.46,13	B.
	(a) α Orionis.....	23,9	37,2	50,9	4,6	18,1	31,4	5.46.45,1		5.46.4,46	B.
	(c) Σ 953. sf.....	17,8	31,1	44,7	58,4	12,2	26,0	6.32.39,4		6.31.58,52	B.
	Σ 1033.....	40,1	2,4	24,8	46,9	9,4	31,4	7.2.54,2		7.1.47,03	B.
	(a) Castor.....	...	...	43,6	59,4	15,8	31,1	7.24.47,0		7.23.59,46	B.
	Piazzi VII. 170...	30,7	44,1	58,0	11,3	25,2	37,9	7.31.52,0		7.31.11,31	B.
	Pollux.....	21,1	36,2	51,4	7,0	22,2	37,3	7.35.52,8		7.35.6,86	B.
	5 Argûs.....	19,2	33,1	46,4	0,4	14,1	28,0	7.40.42,1		7.40.0,47	B.
	(a) A.S.C. 1044.....	14,2	28,0	41,2	55,0	8,8	22,1	8.27.35,4		8.26.54,96	B.
	(a) Σ 1263.....	18,1	...	54,4	12,9	31,2	49,0	8.35.7,0		8.34.12,71	B.
	(a) ϵ Hydræ.....	12,2	25,4	38,9	52,4	6,2	19,5	8.38.33,2		8.37.52,54	B.
Mar. 25	(c) Jupiter 1 L.....	27,0	...	56,1	...	26,1	...	19.24.54,2	- 0,02 + 0,03	19.24.10,83	B.
	Jupiter 2 L.....	...	44,3	...	13,3	...	42,0	19.24.		19.24.13,23	B.
	α Aquilæ.....	48,0	1,8	15,1	29,0	42,7	56,0	19.43.10,0		19.42.28,95	B.
	(d) β Aquilæ.....	17,0	30,6	44,0	57,5	11,1	24,7	19.47.38,1		19.46.57,57	B.
Mar. 26	(f) \odot 1 L.....	...	50,0	3,9	17,0	30,9	44,1	0.18.	0,00 - 15,30 + 0,03	0.18.17,18	B.
	\odot 2 L.....	45,5	59,1	13,0	26,1	40,0	53,2	0.21.7,0		0.20.26,27	B.
	(a) Rigel.....	39,9	53,9	7,1	20,8	34,6	47,9	5.7.1,8		5.6.20,85	B.
	(a) β Tauri.....	...	...	27,9	43,4	58,8	14,1	5.16.29,1		5.15.43,36	B.
	(g) α Orionis.....	20,8	35,0	48,1	1,7	15,2	28,9	5.46.42,2		5.46.1,70	B.
	(h) 12 Lyncis.....	22,1	49,1	...	42,1	...	35,2	6.33.1,7		6.31.42,07	B.
	Σ 1033.....	37,1	59,7	21,8	44,2	6,8	28,9	7.2.51,1		7.1.44,23	B.
	η Virginis.....	34,6	48,0	1,9	15,1	29,0	42,1	12.11.55,7		12.11.15,20	B.
	γ 2 L.....	0,9	14,8	28,7	42,9	57,1	11,0	12.37.25,1		12.36.42,93	B.
	θ Virginis.....	31,5	45,2	58,7	12,1	25,8	39,1	13.1.53,0		13.1.12,20	B.
	Spica.....	36,9	51,0	4,4	18,1	32,1	45,3	13.16.59,1		13.16.18,13	B.
Mar. 28	(i) \odot 1 L.....	50,8	4,1	17,3	30,9	...	57,7	0.26.11,1	+ 2,28 - 13,51	0.25.30,93	B.
	\odot 2 L.....	...	...	26,3	39,9	53,9	7,1	0.28.20,8		0.27.40,09	B.
	12 Lyncis.....	20,0	47,1	13,2	39,6	7,0	32,5	6.32.59,7		6.31.39,88	B.
	Castor.....	6,4	22,4	38,1	54,3	10,4	26,2	7.24.41,9		7.23.54,24	B.
	Procyon.....	44,7	58,1	11,2	24,7	38,1	51,8	7.31.5,2		7.30.24,83	B.
	Pollux.....	16,1	31,1	46,8	2,1	17,4	32,3	7.35.48,2		7.35.2,00	B.
	5 Argûs.....	14,4	28,1	41,7	55,4	9,1	22,9	7.40.37,2		7.39.55,54	B.
	A.S.C. 1044.....	9,8	23,1	36,2	50,1	4,0	17,2	8.27.30,7		8.26.50,15	B.
	σ^4 Caneri.....	17,9	33,9	50,0	6,1	22,1	38,0	8.51.53,4		8.51.5,92	B.
	21 Ursæ Majoris..	39,1	2,4	25,9	49,1	12,8	36,0	9.14.58,9		9.13.49,17	B.
	α Hydræ.....	30,8	45,2	59,2	12,6	26,2	39,8	9.19.53,2		9.19.12,43	B.
	Regulus.....	39,3	53,4	7,1	21,0	34,7	48,2	10.0.2,1		9.59.20,82	B.
	Σ 1426.....	58,9	12,0	25,6	39,1	53,0	6,8	10.12.20,1		10.11.39,36	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Cloudy.
 (b) The observation has been increased 1^m.
 (c) Barely visible. (d) Very faint.
 (e) Very faint. This observation has been increased 1^m.

(f) Cloudy and unsteady.
 (g) Faint from clouds.
 (h) This is the following star.
 (i) Very cloudy and unsteady.

CALCULATION OF APPARENT RIGHT ASCENSIONS.

17

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,23	+ 3,18	6,26 53,67 42,22 48,57	38,78	32,52	1,05	32,09	6 . 13 . 26,03 6 . 34 . 14,60 7 . 2 . 20,97	- 1,94 - 2,11 - 3,11	α Orionis. μ Geminorum. ϵ Geminorum. Σ 1033.
			53,45			0,97	33,17	0 . 5 . 26,62		\odot 's center.
			5,32 59,25 59,80 30,38 7,37	38,76 33,22 3,82 40,92	33,44 33,42 33,44 33,55			5 . 46 . 38,72 6 . 32 . 32,68 7 . 24 . 33,27 7 . 31 . 3,85 7 . 35 . 40,85	- 1,57 - 1,85 - 2,57 - 2,11 - 2,53	α Orionis. Σ 953. <i>sf.</i> Castor. Procyon. Pollux.
			33,67			0,83	33,19	19 . 23 . 7,53		Jupiter's center.
			31,44 0,18	5,48 34,16	34,04 33,98			19 . 43 . 5,31 19 . 47 . 34,05	- 1,00 - 1,01	α Aquilæ. β Aquilæ.
			20,91 23,75 45,98 4,42 58,48 46,62 59,27 11,28 6,70 0,54 54,92 12,43 52,50	55,51 58,05 20,10 38,74	34,60 34,30 34,12 34,32		34,02	1 . 1 . 54,96 5 . 6 . 57,95 5 . 16 . 20,18 5 . 46 . 38,64 6 . 32 . 32,73 7 . 2 . 20,88 7 . 24 . 33,55 7 . 31 . 45,56 7 . 35 . 40,98 7 . 40 . 34,83 8 . 27 . 29,23 8 . 34 . 46,75 8 . 38 . 26,82	+ 48,00 - 1,16 - 1,61 - 1,55 - 1,84 - 3,05 - 2,55 - 2,11 - 2,51 - 1,92 - 2,39 - 3,26 - 2,45	Polaris. Rigel. β Tauri. α Orionis. Σ 953. <i>sf.</i> Σ 1033. Castor. Piazzi VII. 170. Pollux. 5 Argûs. A.S.C. 1044. Σ 1263. ϵ Hydræ.
		+ 2,96	12,15			0,95	35,88	19 . 24 . 48,80		Jupiter's center.
			28,90 57,53	5,56 34,24	36,66 36,71			19 . 43 . 5,56 19 . 47 . 34,19	- 1,08 - 1,09	α Aquilæ. β Aquilæ.
			21,71				36,83	0 . 19 . 58,55		\odot 's center.
			20,89 43,20 1,65 41,54 43,82 15,20 42,98 12,22 18,18	58,01 20,05 38,70	37,12 36,85 37,05			5 . 6 . 57,92 5 . 16 . 20,24 5 . 46 . 38,71 6 . 32 . 18,63 7 . 2 . 20,93 12 . 11 . 52,51 12 . 37 . 20,31 13 . 1 . 49,57 13 . 16 . 55,54	- 1,12 - 1,56 - 1,51 - 2,97 - 2,97 - 2,88 - 2,86 - 2,85	Rigel. β Tauri. α Orionis. 12 Lyncis. Σ 1033. η Virginis. γ 2 L. θ Virginis. Spica.
	- 3,25		35,49			1,04	38,72	0 . 27 . 14,23		\odot 's center.
			39,35 54,04 24,80 1,83 55,59 50,10 5,72 48,74 12,47 20,75 39,31	33,11 3,72 40,81	39,07 38,92 38,98			6 . 32 . 18,35 7 . 24 . 33,08 7 . 31 . 3,85 7 . 35 . 40,88 7 . 40 . 34,64 8 . 27 . 29,18 8 . 51 . 44,82 9 . 14 . 27,86 9 . 19 . 51,59 9 . 59 . 59,90 10 . 12 . 18,47	- 2,90 - 2,46 - 2,01 - 2,42 - 1,84 - 2,32 - 2,95 - 4,03 - 2,37 - 2,77 - 2,74	12 Lyncis. Castor. Procyon. Pollux. 5 Argûs. A.S.C. 1044. σ^4 Cancrî. 21 Ursæ Majoris. α Hydræ. Regulus. Σ 1426.

March 30. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Mar. 28	Σ 1447.	46,1	1,1	15,6	30,4	45,2	0,1	10. 25. 14,9		10. 24. 30,48	B.
Mar. 29	\odot 1 L.	26,5	39,8	53,8	7,7	21,1	34,2	0. 29. 47,9		0. 29. 7,29	B.
	α Arietis.	54,0	8,3	22,8	37,4	52,2	6,7	1. 58. 21,1		1. 57. 37,50	B.
	12 Lyneis.	19,2	45,3	12,2	38,3	4,9	31,6	6. 32. 58,4		6. 31. 38,56	B.
	Castor.	5,6	21,2	37,1	53,2	9,2	24,9	7. 24. 40,9		7. 23. 53,16	B.
	Procyon.	43,6	57,1	10,3	23,8	37,2	50,9	7. 31. 4,1		7. 30. 23,86	B.
	Pollux.	15,1	30,2	45,2	1,1	16,2	31,2	7. 35. 46,6		7. 35. 0,80	B.
	Σ 1200.	41,0	2,1	23,1	44,0	5,4	26,1	8. 4. 47,1		8. 3. 44,11	B.
	A.S.C. 1044. <i>sp</i> ...	8,1	22,0	35,2	48,7	2,4	16,0	8. 27. 29,3		8. 26. 48,82	B.
	Regulus.	38,1	51,7	6,1	19,4	33,2	47,1	10. 0. 1,1		9. 59. 19,53	B.
Mar. 30	(a) \odot 1 L. ....	...	17,4	30,9	44,3	58,1	11,9	0. 33.	0,00	0. 32. 44,52	B.
	(b) Polaris. ....	...	...	52.56,4	1.19,5	...	18.16,3	1.	- 2. 46,32	1. 1. 24,41	B.
	β Tauri.	52,9	8,4	23,7	38,9	54,3	9,6	5. 16. 25,0		5. 15. 38,97	B.
	α Orionis.	16,7	30,2	43,9	57,4	11,1	24,5	5. 46. 38,1		5. 45. 57,42	B.
	Castor.	4,1	20,1	55,9	52,1	8,2	24,0	7. 24. 39,9		7. 23. 52,04	B.
	Procyon.	41,9	55,4	8,8	22,2	36,2	49,4	7. 31. 3,2		7. 30. 22,44	B.
	Pollux.	13,8	29,2	44,1	59,9	15,1	30,2	7. 35. 45,7		7. 34. 59,72	B.
	Σ 1200.	40,2	0,9	22,1	43,1	4,2	25,0	8. 4. 46,2		8. 3. 43,10	B.
	(b) A.S.C. 1044. <i>sp</i> ...	6,8	20,9	34,1	47,6	2,0	15,2	8. 27.	+ 6,78	8. 26. 47,88	B.
	(c) Σ 1288. <i>p</i>	49,1	4,3	19,8	...	50,9	6,2	8. 43. 21,9	- 0,01	8. 42. 35,36	B.
	σ^2 Ursæ Majoris. ...	2,6	37,9	13,2	49,1	25,1	0,2	8. 57. 35,8		8. 55. 49,13	B.
	α Hydræ.	30,1	43,2	56,6	10,5	24,1	37,4	9. 19. 51,1		9. 19. 10,43	B.
	Regulus.	37,2	51,1	4,8	18,7	33,1	46,2	10. 0. 0,1		9. 59. 18,75	B.
	(d) Polaris SP.	35.43,2	44.12,3	52.28,8	1. 2,6	9.28,2	17.49,5	13. 26. 15,6		13. 1. 0,03	B.
Apr. 1	(e) Polaris SP.	35.39,6	44.10,7	52.26,4	0.57,3	9.23,5	17.47,6	13. 26. 13,8		13. 0. 56,99	B.
Apr. 2	Σ 1338.	31,2	48,9	6,0	23,2	41,0	57,7	9. 11. 25,1		9. 10. 23,30	B.
	α Hydræ. ....	...	40,1	53,9	7,2	21,1	34,7	9. 19. 48,1	- 6,79	9. 19. 7,39	B.
Apr. 4	Castor.	59,7	15,8	31,3	47,4	3,6	19,2	7. 24. 55,2		7. 23. 47,46	B.
	Procyon.	37,2	50,7	4,3	17,9	31,9	45,0	7. 30. 58,6		7. 30. 17,95	B.
	Pollux.	9,2	24,7	39,6	55,1	11,1	25,9	7. 35. 41,2		7. 34. 55,26	B.
	(b) Piazzini VIII. 131. <i>sf</i> .	28,7	49,9	10,1	31,0	52,0	12,2	8. 32. 33,0		8. 31. 30,98	B.
	(c) Σ 1288. ....	...	0,1	15,4	31,1	46,4	2,0	8. 43. 17,3	- 7,70	8. 42. 31,02	B.
	σ^2 Ursæ Majoris. ...	57,8	33,1	8,9	44,4	20,4	55,3	8. 57. 30,9		8. 55. 44,40	B.
	Σ 1322.	26,1	40,1	53,9	8,1	22,1	36,2	9. 3. 50,2		9. 3. 8,10	B.
	Σ 1333.	8,0	24,6	41,2	57,9	15,1	31,0	9. 8. 47,9		9. 7. 57,96	B.
	Σ 1355.	34,1	...	1,1	14,6	28,1	41,5	9. 18. 55,2	- 4,52	9. 18. 14,58	B.
	Σ 1365.	58,1	12,0	25,0	38,4	52,0	5,1	9. 23. 19,0		9. 22. 38,52	B.
	(f) Regulus.	33,1	46,5	0,3	14,1	28,2	42,0	9. 59. 55,7		9. 59. 14,27	B.
	(g) * N.P.D. 89°. 27'.	42,0	55,3	8,8	22,3	36,1	49,0	10. 33. 3,1		10. 32. 22,37	B.
	(h) Σ 1530. ....	...	...	47,9	1,2	15,1	28,8	11. 11. 42,2	- 13,53	11. 11. 1,51	B.
	(c) Jupiter 1 L.	17,0	...	45,8	...	14,9	...	19. 29. 43,9	- 0,02	19. 29. 0,38	B.
	Jupiter 2 L. ....	...	34,1	...	3,2	...	32,1	19. 29.	+ 0,03	19. 29. 3,16	B.
	α Aquilæ.	38,9	52,3	5,9	19,8	33,7	47,0	19. 43. 0,6		19. 42. 19,75	B.
	β Aquilæ.	8,1	21,4	35,0	48,4	2,1	15,3	19. 47. 29,0		19. 46. 48,47	B.
	γ 2 L.	22,1	36,8	51,0	5,2	20,0	34,0	21. 1. 48,3		21. 1. 5,34	B.
	(i) δ Capricorni.	52,0	5,9	19,4	33,7	48,0	1,9	21. 38. 16,1		21. 37. 33,86	B.
	(i) α Andromedæ.	42,3	57,3	12,8	28,3	43,9	59,1	0. 0. 14,0		23. 59. 28,25	B.
Apr. 5	(k) \odot 1 L.	48,4	2,2	15,3	29,0	43,0	56,2	0. 55. 9,4		0. 54. 29,07	B.
	\odot 2 L.	57,9	11,8	24,3	39,0	52,3	5,9	0. 57. 19,8		0. 56. 38,72	B.
	(l) Polaris.	36. 6,6	...	...	1.25,7	9.55,3	18.11,8	1. 26. 37,3	- 5. 3,18	1. 1. 24,16	B.
	α Pegasi.	26,0	39,7	43,5	7,2	21,3	35,0	22. 56. 48,9		22. 56. 7,37	B.
	α Andromedæ.	41,8	56,8	11,9	27,2	42,9	58,0	0. 0. 12,9		23. 59. 27,36	B.
Apr. 6	(m) \odot 1 L.	26,4	40,0	53,7	7,1	20,9	34,3	0. 58. 48,1		0. 58. 7,22	B.
	\odot 2 L.	35,9	49,5	3,1	17,0	30,9	44,1	1. 0. 57,9		1. 0. 16,89	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

(a) Loud wind and clouds: altogether doubtful. (b) Cloudy. (c) Very faint. (d) Cloudy. Temperature 48°. (e) Cloudy and unsteady. Temperature 42°. (f) Blazing. (g) This star precedes Σ 1464 by 25°. (h) Very faint. Most probably this is the following star. (i) Hazy, faint, and unsteady. (k) Clouds, unsteadiness, and much confused light. The intervals of 2 L are discordant. (l) Great motion. (m) Much motion and confused light.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,46	-3,25	+2,96	30,34			1,04	38,72	10.25. 9,51	-3,05	Σ 1447.
			7,27			1,10	39,77	0.29.47,06		⊙ 1 L.
			37,38	17,23	39,85			1.58.17,24	-0,42	α Arietis.
			38,03					6.32.18,10	-2,87	12 Lyncis.
			52,96	33,09	40,13			7.24.33,07	-2,44	Castor.
			23,83	3,71	39,88			7.31. 3,94	-2,00	Procyon.
			0,63	40,79	40,16			7.35.40,75	-2,40	Pollux.
			43,73					8. 4.23,87	-3,29	Σ 1200.
			48,77					8.27.28,93	-2,31	A.S.C. 1044. sp.
			19,46	59,87	40,41			9.59.59,69	-2,76	Regulus.
			44,49			1,12	40,89	0.33.25,40		⊙ 1 L.
			12,54	54,87	42,33			1. 1.53,48	+48,64	Polaris.
			38,81	19,98	41,17			5.16.19,95	-1,49	β Tauri.
			57,37	38,63	41,26			5.46.38,53	-1,44	α Orionis.
			51,84	33,07	41,23			7.24.33,08	-2,42	Castor.
			22,41	3,69	41,28			7.31. 3,65	-1,98	Procyon.
			59,55	40,77	41,22			7.35.40,79	-2,38	Pollux.
			42,72					8. 4.23,99	-3,26	Σ 1200.
			47,83					8.27.29,11	-2,30	A.S.C. 1044. sp.
			35,19					8.43.16,49	-2,78	Σ 1288. p.
			48,36					8.56.29,67	-5,26	σ² Ursæ Majoris.
			10,46	51,76	41,30			9.19.51,78	-2,35	α Hydræ.
			18,68	59,87	41,19			10. 0. 0,04	-2,76	Regulus.
			11,97	54,91	42,94			1. 1.53,47	+48,60	Polaris SP.
			8,93	54,98	46,05	0,76	43,25	1. 1.52,59	+48,53	Polaris SP.
			23,05				44,01	9.11. 7,35	-3,14	Σ 1338.
			7,42	51,73	44,31					α Hydræ.
	-3,27	+3,63	47,28	32,97	45,69	0,78	45,37	7.24.32,89	-2,32	Castor.
			17,95	3,61	45,66			7.31. 3,56	-1,90	Procyon.
			55,11	40,69	45,58			7.35.40,73	-2,30	Pollux.
			30,61					8.32.16,26	-3,31	Piazzivm. 131. sf.
			30,87					8.43.16,52	-2,71	Σ 1288.
			43,59					8.56.29,25	-5,06	σ² Ursæ Majoris.
			8,03					9. 3.53,69	-2,57	Σ 1322.
			57,75					9. 8.43,42	-3,01	Σ 1333.
			14,56					9.19. 0,23	-2,48	Σ 1355.
			38,54					9.23.24,52	-2,43	Σ 1365.
			14,23	59,82	45,59			9.59.59,92	-2,71	Regulus.
			22,39					10.33. 8,10	-2,68	* N.P.D. 89°. 27'.
			1,58					11.11.47,31	-2,75	Σ 1530.
			1,92			0,81	45,37	19.29.47,95		Jupiter's center.
			19,73	5,85	46,12			19.43. 5,77	-1,37	α Aquilæ.
			48,46	34,53	46,07			19.47.34,50	-1,38	β Aquilæ.
			5,47					21. 1.51,55		⊙ 2 L.
			33,99					21.38.20,09	-1,09	δ Capricorni.
			28,10	14,15	46,05		46,18	0. 0.14,28	-0,17	α Andromedæ.
			33,89					0.56.20,10		⊙'s center.
			11,25	54,93	43,68			1. 1.57,46	+48,58	Polaris.
			7,32	54,20	46,88	0,84	46,11	22.56.54,23	-0,49	α Pegasi.
			27,21	14,16	46,95		46,95	0. 0.14,16	-0,18	α Andromedæ.
			12,05					0.59.59,03		⊙'s center.

 April 6. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Apr. 6	(a) Polaris.....	36. 4,4	44.31,6	52.52,8	....	9.50,5	18. 8,2	1. 26. 35,4	- 0,24	1. 1. 20,24	B.
	(b) α Arietis.....	47,3	1,7	16,1	30,1	45,0	59,2	1. 58. 14,1		1. 57. 30,50	B.
	Castor.....	58,1	13,9	29,7	45,5	2,0	17,6	7. 24. 33,4		7. 23. 45,74	B.
	Procyon.....	35,4	49,2	2,7	16,2	29,7	43,0	7. 30. 56,9		7. 30. 16,16	B.
	Pollux.....	7,6	22,9	38,3	53,4	9,1	24,0	7. 35. 39,4		7. 34. 53,53	B.
	(c) Σ 1289.....	27,1	47,2	8,1	28,9	49,8	10,1	8. 32. 31,1		8. 31. 28,90	B.
	Σ 1312. <i>np.</i>	29,3	48,1	7,1	25,8	44,3	3,1	8. 44. 22,0		8. 43. 25,67	B.
	Σ 1318.....	10,2	32,9	55,1	17,3	40,1	2,1	8. 59. 25,0		8. 58. 17,53	B.
	Σ 1333.....	13,1	33,3	53,2	13,5	33,8	53,2	9. 3. 13,1		9. 2. 13,31	B.
	Σ 1333.....	6,6	23,1	39,2	56,1	12,9	29,0	9. 8. 46,1		9. 7. 56,14	B.
	(d) 39 Lyncis.....	....	....	....	0,2	22,0	42,0	9. 12. 3,4	- 31,56	9. 11. 0,34	B.
	(d) Σ 1355.....	....	....	....	13,2	26,4	40,0	9. 18. 53,2	- 20,36	9. 18. 12,84	B.
	Σ 1365.....	56,3	10,1	23,2	37,0	50,4	4,1	9. 23. 17,0		9. 22. 36,87	B.
	Piazzi IX. 161.....	....	....	....	17,1	30,7	44,2	9. 35. 10,9	- 13,48	9. 34. 30,54	B.
	(e) Regulus.....	31,8	45,2	58,8	12,5	26,8	40,2	9. 59. 53,9		9. 59. 12,74	B.
	(f) N.P.D. 89°. 27'.....	40,1	54,0	7,2	20,4	34,1	47,1	10. 33. 1,1		10. 32. 20,57	B.
	(g) Σ 1511.....	30,4	43,8	57,2	10,9	24,7	38,2	10. 58. 51,7		10. 58. 10,98	B.
	57 Ursæ Majoris..	56,1	14,1	30,9	48,9	6,9	24,1	11. 20. 41,6		11. 19. 48,95	B.
	90 Leonis.....	1,4	15,9	30,1	44,1	59,0	12,8	11. 26. 27,0		11. 25. 44,33	B.
	A.S.C. 1364.....	54,8	7,9	21,8	35,2	48,9	2,2	11. 30. 15,8		11. 29. 35,23	B.
	(h) Polaris SP.....	35.35,2	44. 8,4	52.21,7	0.53,4	9.23,7	17.43,3	13. 26. 9,5		13. 0. 53,60	B.
	(i) Polaris.....	36. 4,7	44.28,8	....	....	....	18. 5,5	1. 26. 35,3	+ 0,30	1. 1. 18,87	B.
Apr. 7	(i) \odot 1 L.....	5,0	18,5	....	44,9	57,8	13,0	1. 2. 26,2	- 2,28	1. 1. 45,29	B.
	\odot 2 L.....	14,1	27,7	41,2	55,0	8,7	....	1. 4. 35,5	+ 4,52	1. 3. 54,89	B.
	(i) Arietis.....	45,6	0,4	14,7	29,4	44,1	58,6	1. 58. 13,0		1. 57. 29,40	B.
	(h) Polaris SP.....	35.34,3	44. 3,8	52.25,8	0.54,2	9.20,6	17.39,3	13. 26. 8,7		13. 0. 52,39	B.
	Jupiter 1 L.....	31,1	....	0,2	....	29,2	....	19. 30. 58,1	- 0,02	19. 30. 14,63	B.
	Jupiter 2 L.....	....	48,6	....	17,7	....	46,5	19. 30.	+ 0,03	19. 30. 17,63	B.
	α Aquilæ.....	36,3	50,2	3,6	17,1	31,0	44,4	19. 42. 58,1		19. 42. 17,25	B.
	β Aquilæ.....	5,5	19,0	32,3	46,0	59,7	12,2	19. 47. 26,4		19. 46. 45,87	B.
	(k) α Pegasi.....	24,0	37,3	51,5	5,8	19,9	33,2	22. 56. 47,1		22. 56. 5,54	B.
	(a) Polaris.....	36. 2,3	44.28,8	52.52,3	1.14,7	....	18. 6,6	1. 26. 32,5	+ 1. 24,94	1. 1. 17,81	B.
Apr. 8	(l) \odot 1 L.....	42,9	56,5	10,0	23,6	37,4	51,0	1. 6. 4,9		1. 5. 23,76	B.
	\odot 2 L.....	53,0	6,5	20,0	33,7	47,3	0,9	1. 8. 14,6		1. 7. 33,71	B.
	(a) α Arietis.....	44,9	59,0	14,0	28,4	43,0	57,3	1. 58. 12,1		1. 57. 28,39	B.
	Castor.....	56,1	12,1	28,0	44,2	0,1	15,8	7. 24. 31,5		7. 23. 43,97	B.
	Procyon.....	33,9	47,1	0,8	14,1	28,0	41,4	7. 30. 55,1		7. 30. 14,34	B.
	Pollux.....	5,8	21,1	36,0	51,7	7,0	22,1	7. 35. 37,3		7. 34. 51,57	B.
	Piazzi VIII. 131. <i>sf.</i>	25,1	46,0	6,1	27,1	48,2	9,1	8. 32. 29,3		8. 31. 27,27	B.
	Σ 1289.....	27,6	46,1	5,1	24,0	42,8	1,2	8. 44. 20,1		8. 43. 23,84	B.
	* N.P.D. 45°. 44'.....	....	....	....	46,1	5,1	23,7	8. 45. 42,3	- 28,18	8. 44. 46,12	B.
	Σ 1312.....	9,1	31,0	53,1	15,5	38,2	0,6	8. 59. 23,0		8. 58. 15,79	B.
	Σ 1322.....	22,2	36,1	50,5	4,4	19,0	33,1	9. 3. 47,1		9. 3. 4,63	B.
	Σ 1333.....	4,7	21,1	37,9	54,1	11,1	27,4	9. 8. 44,1		9. 7. 54,34	B.
	Σ 1348.....	41,9	55,1	9,3	22,3	36,1	49,4	9. 16. 3,2		9. 15. 22,47	B.
	Σ 1355.....	30,1	44,0	57,3	11,1	25,1	38,2	9. 18. 51,7		9. 18. 11,07	B.
	Σ 1365.....	55,0	8,1	21,9	35,2	49,0	2,1	9. 23. 15,6		9. 22. 35,27	B.
	Piazzi IX. 161.....	48,1	1,7	15,2	28,4	42,0	55,1	9. 35. 9,0		9. 34. 28,50	B.
	Regulus.....	29,8	43,4	57,1	11,1	24,9	38,3	9. 59. 52,2		9. 59. 10,97	B.
	(f) * N.P.D. 89°. 27'.....	39,1	52,8	5,3	19,2	32,4	46,0	10. 32. 59,3		10. 32. 19,16	B.
	57 Ursæ Majoris..	54,4	12,1	29,3	47,1	5,1	22,3	11. 20. 40,1		11. 19. 47,20	B.
	Σ 1561.....	41,2	1,1	20,1	39,5	59,2	18,3	11. 30. 37,4		11. 29. 39,55	B.
	(m) Polaris SP.....	35.33,5	44. 9,7	52.23,7	0.56,4	9.15,6	17.43,7	13. 26. 9,4		13. 0. 53,14	B.
	Jupiter 1 L.....	54,2	....	23,3	....	52,9	....	19. 31. 21,3	- 0,02	19. 30. 37,91	B.
	Jupiter 2 L.....	....	11,9	....	41,2	....	9,9	19. 31.	+ 0,03	19. 30. 41,03	B.
	(d) α Aquilæ.....	35,4	48,9	2,8	16,4	30,2	43,5	19. 42. 57,2		19. 42. 16,34	B.
	(d) Polaris.....	36. 2,4	....	....	1.18,7	....	18. 4,5	1.	+ 2. 49,72	1. 1. 18,25	B.
Apr. 9	(n) \odot 1 L.....	21,3	35,0	48,4	2,1	16,1	19,4	1. 9. 42,9		1. 9. 2,17	B.
	\odot 2 L.....	31,2	44,9	58,5	12,1	26,0	39,3	1. 11. 53,0		1. 11. 12,14	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGG*.

- (a) Great motion. (b) Hazy, faint, and unsteady. (c) This appears to be the preceding star. (d) Cloudy.
 (e) Blazing. (f) Σ 1464 follows 25^s and has nearly the same N.P.D. (g) Very faint. (h) Very unsteady.
 (i) Cloudy and unsteady. (k) Faint and unsteady. (l) Glare of confused light and much unsteadiness.
 (m) Badly defined and unsteady. (n) Much motion and stray light.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,27	+ 3,63	7,33 30,39 45,56 16,16 53,38 28,53 25,38 17,12 12,97 55,93 59,96 12,82 36,88 30,55 12,70 20,59 10,94 48,70 44,26 35,27 6,63 5,96	54,89 17,23 32,93 3,58 40,65	47,56 46,84 47,37 47,42 47,27	0,84	46,95	1. 1. 54,32 1. 58. 17,41 7. 24. 32,77 7. 31. 3,37 7. 35. 40,60 8. 32. 15,78 8. 44. 12,64 8. 59. 4,38 9. 3. 0,24 9. 8. 43,20 9. 11. 47,23 9. 19. 0,09 9. 23. 24,16 9. 35. 17,84 10. 0. 0,00 10. 33. 7,91 10. 58. 58,27 11. 20. 36,05 11. 26. 31,61 11. 30. 22,62 1. 1. 54,04 1. 1. 53,86	+ 48,62 - 0,42 - 2,28 - 1,87 - 2,26 - 3,25 - 3,12 - 3,61 - 3,37 - 2,98 - 3,54 - 2,45 - 2,40 - 2,47 - 2,69 - 2,67 - 2,87 - 3,51 - 3,01 - 2,82 + 48,63 + 48,64	Polaris. α Arietis. Castor. Procyon. Pollux. Piazzi VIII. 131. Σ 1289. Σ 1312. <i>np</i> . Σ 1318. Σ 1333. 39 Lyncis. Σ 1355. Σ 1365. Piazzi IX. 161. Regulus. * N.P.D. 89°. 27'. Σ 1511. 57 Ursæ Majoris. 90 Leonis. A.S.C. 1364. Polaris SP. Polaris.
			50,07 29,29 5,42	59,80 17,23 54,87	47,10 47,94 49,45	0,94	47,86	1. 3. 37,97 1. 1. 53,79		\odot 's center. α Arietis. Polaris SP.
			16,28 17,23 45,86 5,49 4,90	5,94 34,61 54,23 54,88	48,71 48,75 48,74 49,98	0,88	47,96	19. 31. 4,95 19. 43. 5,91 19. 47. 34,55 22. 56. 54,29 1. 1. 53,78	- 1,46 - 1,46 - 0,52 + 48,63	Jupiter's center. α Aquilæ. β Aquilæ. α Pegasi. Polaris.
			28,72 28,28 43,78 14,32 51,41 26,90 23,55 45,83 15,38 4,55 54,12 22,44 11,04 35,27 28,50 10,92 19,16 46,94 39,23 5,68	17,23 32,90 3,55 40,61	48,95 49,12 49,23 49,20		48,84	1. 7. 17,60 1. 58. 17,19 7. 24. 32,89 7. 31. 3,43 7. 35. 40,53 8. 32. 16,05 8. 44. 12,71 8. 45. 34,99 8. 59. 4,55 9. 3. 53,72 9. 8. 43,29 9. 16. 11,62 9. 19. 0,22 9. 23. 24,45 9. 35. 17,69 10. 0. 0,13 10. 33. 8,39 11. 20. 36,19 11. 30. 28,49 1. 1. 55,00	- 0,42 - 2,25 - 1,84 - 2,22 - 3,20 - 3,07 - 3,08 - 3,56 - 2,51 - 2,94 - 2,41 - 2,42 - 2,38 - 2,45 - 2,67 - 2,65 - 3,49 - 3,72 + 48,61	\odot 's center. α Arietis. Castor. Procyon. Pollux. Piazzi VIII. 131. <i>sf</i> . Σ 1289. * N.P.D. 45°. 44'. Σ 1312. Σ 1322. Σ 1333. Σ 1348. Σ 1355. Σ 1365. Piazzi IX. 161. Regulus. * N.P.D. 89°. 27'. 57 Ursæ Majoris. Σ 1561. Polaris SP.
		+ 3,32	39,60 16,31 5,80	59,78 5,97 54,93	48,86 49,66 49,13	0,86	48,77	19. 31. 29,07 19. 43. 5,79 1. 1. 55,47	- 1,49 + 48,58	Jupiter's center. α Aquilæ. Polaris.
			7,13					1. 10. 56,80		\odot 's center.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Apr. 9	Castor	55,2	11,7	27,0	42,9	59,2	14,9	7.24.30,8		7.23.43,10	B.
	(a) Procyon.....	32,9	46,4	59,9	13,3	27,1	40,6	7.30.54,1		7.30.13,47	B.
	(b) Pollux.....	4,9	20,5	35,4	50,7	6,3	21,2	7.35.36,6		7.34.50,80	B.
	(c) Σ 1244.....	23,1	41,2	59,4	18,0	36,0	54,1	8.27.12,5		8.26.17,76	B.
	(c) Σ 1263. p.....	2,1	20,1	38,2	56,7	14,9	33,1	8.34.51,2		8.33.56,62	B.
	(d) Σ 1289.....	26,7	45,3	4,0	22,4	42,0	0,5	8.44.19,2		8.43.22,87	B.
	* N.P.D. 45°. 44'				44,9	4,1	22,5	8.45.41,4	- 28,18	8.44.45,04	B.
	Σ 1312. np.....	8,0	30,0	52,2	15,0	37,6	59,5	8.59.22,1		8.58.14,91	B.
	(c) Σ 1322.....	21,0	35,7	49,8	3,4	18,2	32,1	9.3.46,0		9.3.3,74	B.
	39 Lyncis.....	54,2	15,3	36,3	57,4	19,1	39,6	9.12.1,2		9.10.57,59	B.
	α Hydræ.....	20,8	34,8	48,0	1,7	15,4	29,1	9.19.42,4		9.19.1,74	B.
	Piazzi IX. 161....	46,9	0,6	14,0	27,8	41,2	54,7	9.35.8,2		9.34.27,63	B.
	Regulus.....	28,4	42,3	56,1	9,9	24,0	37,3	9.59.51,1		9.59.9,88	B.
	(e) * N.P.D. 89°. 27'	37,3	51,1	4,2	17,8	31,5	45,1	10.32.58,2		10.32.17,89	B.
	Σ 1511.....	27,8	41,2	54,7	8,3	22,2	35,6	10.58.49,2		10.58.8,43	B.
	90 Leonis.....	59,7	14,2	27,4	41,8	56,1	9,9	11.26.24,2		11.25.41,90	B.
	Σ 1561.....	40,6	0,1	19,3	38,8	58,3	17,3	11.30.36,8		11.29.38,75	B.
	(b) β Leonis.....	31,1	45,0	58,7	12,9	27,2	40,7	11.40.54,8		11.40.12,91	B.
	(f) Polaris SP.....	35.32,4	43.54,6	52.16,7	0.47,2	9.16,8	17.39,5	13.26.5,7		13.0.47,56	B.
Apr. 10	(c) Jupiter 1 L.....	39,2	.....	7,6	.....	37,1	.....	19.32.6,1	- 0,02	19.31.22,48	B.
	Jupiter 2 L.....	.....	56,5	.....	25,6	.....	55,1	19.31.....	+ 0,03	19.31.25,76	B.
	α Aquilæ.....	33,7	47,3	0,8	14,4	28,4	41,5	19.42.55,1		19.42.14,46	B.
	β Aquilæ.....	2,8	16,1	29,4	43,2	57,1	10,0	19.47.23,7		19.46.43,18	B.
Apr. 11	(a) \odot 1 L.....	39,6	53,2	6,9	20,4	.....	.....	1.16.....	+ 20,48	1.16.20,50	B.
	\odot 2 L.....	.....	3,1	16,5	30,1	44,0	57,9	1.19.11,3	- 6,82	1.18.30,33	B.
	Castor.....	53,1	9,3	25,0	41,0	57,1	12,7	7.24.28,7		7.23.40,98	B.
	Procyon.....	30,9	44,2	57,9	11,4	25,1	38,3	7.30.51,8		7.30.11,37	B.
	Pollux.....	2,7	18,2	32,9	48,6	4,1	18,9	7.35.34,6		7.34.48,57	B.
	Σ 1263.....	59,8	18,1	36,3	54,4	13,0	31,0	8.34.48,9		8.33.54,50	B.
	(g) ϵ Caneri.....	.....	.....	2,5	18,2	33,9	49,1	8.37.4,8	- 15,44	8.36.18,26	B.
	(g) Σ 1289.....	25,3	43,9	2,1	20,9	40,0	58,4	8.44.17,1		8.43.21,10	B.
	(g) σ^2 Ursæ Majoris...	50,9	26,4	1,9	37,4	13,5	48,6	8.57.24,4		8.55.37,59	B.
	Σ 1318.....	8,6	28,8	48,8	8,3	28,7	48,5	9.3.8,6		9.2.8,61	B.
	(g) Σ 1338.....	23,3	41,0	58,0	15,2	33,0	50,0	9.11.7,1		9.10.15,37	B.
	(g) Σ 1348.....	37,7	52,1	.....	19,1	33,0	46,1	9.15.59,9	- 2,27	9.15.19,05	B.
	(g) α Hydræ.....	18,7	32,2	46,1	59,3	13,2	26,7	9.19.40,2		9.18.59,49	B.
	Regulus.....	26,3	40,2	54,1	7,8	21,7	35,2	9.59.49,2		9.59.7,79	B.
	Σ 1511. sf.....	24,9	39,0	52,2	6,1	20,0	33,9	10.58.47,4		10.58.6,22	B.
	Σ 1561.....	38,1	58,0	17,1	36,6	56,0	15,1	11.30.34,9		11.29.36,54	B.
	(g) β Leonis.....	29,1	43,1	.....	11,1	24,9	39,0	11.40.53,1	- 2,34	11.40.11,04	B.
	(c) Jupiter 1 L.....	0,4	.....	29,8	.....	58,9	.....	19.32.27,5	- 0,02	19.31.44,13	B.
	Jupiter 2 L.....	.....	18,1	.....	47,0	.....	15,7	19.32.....	+ 0,03	19.31.46,96	B.
	α Aquilæ.....	32,9	45,9	0,2	13,8	27,3	40,6	19.42.54,3		19.42.13,57	B.
	(c) β Aquilæ.....	1,9	15,7	28,8	42,2	55,9	9,1	19.47.22,8		19.46.42,34	B.
Apr. 12	(g) Castor.....	52,3	8,3	24,2	40,2	56,3	12,0	7.24.27,8		7.23.40,15	B.
	(g) Procyon.....	30,7	43,8	57,1	10,8	24,2	.....	7.30.....	+ 13,52	7.30.10,84	B.
Apr. 14	Σ 1318.....	6,1	26,1	46,0	6,2	26,3	46,0	9.3.6,1		9.2.6,11	B.
	(g) Σ 1338.....	20,4	38,1	55,6	13,0	30,5	47,2	9.11.5,0		9.10.12,83	B.
	α Hydræ.....	16,4	30,0	43,4	57,2	11,1	24,2	9.19.38,0		9.18.57,19	B.
	(g) Regulus.....	23,9	37,8	51,3	5,2	19,2	32,9	9.59.47,0		9.59.5,33	B.
Apr. 15	ϵ^2 Cancri.....	55,9	11,7	27,0	43,0	59,1	14,4	8.44.30,1		8.43.43,03	B.
	39 Lyncis.....	48,9	10,1	31,2	52,2	13,4	34,1	9.11.55,5		9.10.52,20	B.
	α Hydræ.....	15,5	28,9	43,5	56,2	10,1	23,3	9.19.37,1		9.18.56,37	B.
	Regulus.....	23,0	36,9	50,8	4,5	18,5	32,1	9.59.46,2		9.59.4,57	B.
	(g) Σ 1544.....	7,9	35,1	2,4	29,9	57,7	24,3	11.22.52,0		11.21.29,90	B.
	β Leonis.....	26,1	39,7	53,4	7,4	22,1	35,3	11.40.49,1		11.40.7,59	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

- (a) Cloudy and unsteady.
 (b) Blazing.
 (c) Faint.
 (d) Wire V was marked doubtful.

- (e) The noted time has been diminished 1^m.
 (f) Clouds and loud wind. Wire VI has been increased 10^s from a consideration of the intervals.
 (g) Cloudy.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,27	+ 4,27	42,94	32,88	49,94	0,86	49,63	7.24.32,83	- 2,23	Castor.
			13,50	3,53	50,03			7.31.3,40	- 1,82	Procyon.
			50,67	40,60	49,93			7.35.40,57	- 2,21	Pollux.
			17,50					8.27.7,43	- 2,88	Σ 1244.
			56,36					8.34.46,30	- 2,93	Σ 1263. p.
			22,59					8.44.12,53	- 3,05	Σ 1289.
			44,76					8.45.34,70	- 3,06	* N.P.D. 45°. 44'.
			14,50					8.59.4,45	- 3,54	Σ 1312. np.
			3,70					9.3.53,65	- 2,50	Σ 1322.
			57,22					9.11.47,18	- 3,47	39 Lyncis.
			1,85	51,64	49,79			9.19.51,81	- 2,23	α Hydræ.
			27,68					9.35.17,65	- 2,44	Piazzi IX. 161.
			9,87	59,77	49,90			9.59.59,86	- 2,66	Regulus.
			17,94					10.53.7,95	- 2,64	* N.P.D. 89°. 27'.
			8,42					10.58.58,44	- 2,85	Σ 1511.
			41,85					11.26.31,89	- 2,99	90 Leonis.
			38,44					11.50.28,48	- 3,71	Σ 1561.
			12,88	2,78	49,90			11.41.2,93	- 2,98	β Leonis.
			1,60	54,99	53,39			1.1.51,70	+ 48,52	Polaris SP.
	- 3,48		24,32			0,91	50,77	19.32.15,83		Jupiter's center.
			14,46	6,03	51,57			19.43.5,98	- 1,55	α Aquilæ.
			43,19	34,70	51,51			19.47.34,71	- 1,55	β Aquilæ.
			25,42				51,68	1.18.17,15		☉'s center.
			40,80	32,84	52,04			7.24.32,76	- 2,19	Castor.
			11,39	3,50	52,11			7.31.3,35	- 1,79	Procyon.
			48,43	40,56	52,13			7.35.40,40	- 2,17	Pollux.
			54,22					8.34.46,22	- 2,88	Σ 1263.
			18,12					8.37.10,13	- 2,56	ι Cancrī.
			20,80					8.44.12,81	- 3,10	Σ 1289.
			36,72					8.56.28,74	- 4,74	σ ² Ursæ Majoris.
			8,25					9.3.0,27	- 3,25	Σ 1318.
			15,13					9.11.7,16	- 2,98	Σ 1338.
			19,05					9.16.11,08	- 2,37	Σ 1348.
			59,59	51,61	52,02			9.19.51,62	- 2,20	α Hydræ.
			7,77	59,75	51,98			9.59.59,83	- 2,64	Regulus.
			6,20					10.58.58,30	- 2,84	Σ 1511. sf.
			36,21					11.30.28,33	- 3,69	Σ 1561.
			11,00	2,78	51,78			11.41.3,12	- 2,98	β Leonis.
			45,74			0,81	51,73	19.32.38,13		Jupiter's center.
			13,57	6,06	52,49			19.43.5,96	- 1,58	α Aquilæ.
			42,35	34,73	52,38			19.47.34,75	- 1,58	β Aquilæ.
			39,97	32,82	52,85		52,54	7.24.32,76	- 2,17	Castor.
			10,86	3,48	52,62			7.31.3,65	- 1,77	Procyon.
		+ 4,96	5,76			0,77	54,00	9.3.0,05	- 3,18	Σ 1318.
			12,60					9.11.6,89	- 2,93	Σ 1338.
			57,33	51,57	54,24					α Hydræ.
			5,34	59,72	54,38					Regulus.
			42,88			0,87	54,75	8.44.37,95	- 2,57	ι ² Cancrī.
			51,81					9.11.46,89	- 3,33	39 Lyncis.
			56,51	51,56	55,05			9.19.51,60	- 2,15	α Hydræ.
			4,58	59,71	55,13			9.59.59,69	- 2,60	Regulus.
			29,27					11.22.24,43	- 4,55	Σ 1544.
			7,58	2,76	55,18			11.41.2,75	- 2,96	β Leonis.

 April 14. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Apr. 15	(a) Polaris SP.	35.32,3	43.59,4	52.17,6	0.40,5	....	....	13.25.57,8	+ 5. 3,00	13. 0.44,52	B.
	(b) Polaris.	36. 2,2	44.27,2	52.47,8	1.12,7	9.44,5	18. 3,6	1.26.27,4		1. 1.15,06	B.
Apr. 16	(b) ☉ 1 L.	0,3	14,1	27,9	41,5	55,3	9,1	1.35.22,9		1.34.41,58	B.
	☉ 2 L.	11,0	24,5	38,1	51,9	6,1	19,3	1.37.33,1		1.36.52,00	B.
	(b) Rigel.	20,9	34,5	48,1	1,7	15,5	28,9	5. 6.42,4		5. 6. 1,71	B.
	(b) β Tauri.	38,1	53,4	8,8	24,0	39,4	54,8	5.16. 9,9		5.15.24,05	B.
	(b) μ Geminorum.	46,0	0,6	15,0	29,6	44,4	58,9	6.13.13,4		6.12.29,70	B.
	(c) ☽ 1 L.	1,1	16,1	31,3	46,4	2,1	17,0	6.25.32,4		6.24.46,63	B.
	(b) ζ Geminorum.	6,7	21,0	35,3	49,9	5,0	18,8	6.54.33,1		6.53.49,98	B.
	δ Geminorum.	3,6	18,1	32,3	46,9	1,7	16,0	7.10.30,7		7. 9.47,05	B.
	Castor.	49,2	5,0	21,0	36,8	52,9	8,1	7.24.24,7		7.23.36,82	B.
	Procyon.	26,7	40,2	53,7	7,3	21,0	34,3	7.30.48,1		7.30. 7,33	B.
	Pollux.	58,6	14,0	29,0	44,4	0,1	15,0	7.35.30,5		7.34.44,51	B.
	ι Cancri.	27,9	43,2	58,9	14,1	29,5	44,9	8.37. 0,4		8.36.14,13	B.
	ι² Cancri.	55,0	10,9	26,3	42,0	58,1	13,4	8.44.29,1		8.43.42,11	B.
	Σ 1311. <i>nf</i>	42,9	57,1	11,8	26,4	41,2	55,9	8.58.10,7		8.57.26,57	B.
	α Hydræ.	14,9	28,3	41,8	55,6	9,4	22,6	9.19.36,4		9.18.55,57	B.
	Regulus.	22,2	36,1	50,0	3,9	17,9	31,3	9.59.44,9		9.59. 3,76	B.
Apr. 18	β Leonis.	22,8	37,1	51,0	5,1	18,8	33,2	11.40.47,4		11.40. 5,06	B.
	(d) Polaris SP.	35.38,4	44. 6,3	52.17,4	0.38,7	9.12,5	17.31,8	13.25.56,3		13. 0.45,91	B.
	(d) Polaris.	35.55,7	44.23,4	....	....	9.41,2	17.57,5	1.26.25,7	- 1.41,63	1. 1.11,07	B.
Apr. 19	(e) ☉ 1 L.	4,6	18,4	32,1	45,9	0,1	13,4	1.46.27,1		1.45.45,94	B.
	☉ 2 L.	15,3	29,1	43,0	56,6	10,4	24,1	1.48.38,1		1.47.56,66	B.
	(e) Procyon.	24,0	37,4	51,0	4,7	18,1	31,6	7.30.45,0		7.30. 4,54	B.
	Pollux.	56,2	11,1	26,2	41,9	57,3	12,6	7.35.28,1		7.34.41,91	B.
	δ Cancri.	2,8	17,0	31,1	45,3	59,9	13,9	8.35.28,0		8.34.45,43	B.
	ι² Cancri.	51,9	7,9	23,6	39,2	55,2	10,9	8.44.26,3		8.43.39,29	B.
	α² Cancri.	12,9	26,1	40,1	53,7	7,9	21,4	8.49.35,1		8.48.53,89	B.
	Σ 1311. <i>nf</i>	39,7	54,3	9,0	23,7	38,5	52,9	8.58. 7,9		8.57.23,71	B.
	(f) α Hydræ.	12,1	25,7	39,2	53,1	6,4	19,9	9.19.33,3		9.18.52,81	B.
	☽ 1 L.	36,1	50,2	4,7	19,0	33,4	47,3	9.24. 1,3		9.23.18,86	B.
	Σ 1396.	17,2	30,9	45,1	58,7	13,2	26,3	9.47.40,1		9.46.58,79	B.
	π Leonis.	14,4	28,1	41,5	55,2	9,0	22,4	9.51.36,1		9.50.55,24	B.
	Regulus.	19,7	33,3	47,2	1,0	14,9	28,7	9.59.42,3		9.59. 1,01	B.
	Σ 1417.	50,1	4,9	19,3	33,5	48,1	2,0	10. 6.16,1		10. 5.33,43	B.
	(g) 44 Leonis.	18,0	32,0	45,1	59,2	13,1	26,9	10.16.40,0		10.15.59,19	B.
	Σ 1439.	48,1	2,3	16,9	31,1	46,0	0,1	10.21.14,5		10.21.31,28	B.
	Σ 1511. <i>sf</i>	18,4	31,8	45,9	59,9	13,6	27,1	10.58.40,6		10.57.59,62	B.
	Σ 1544. <i>p</i>	4,1	31,6	58,9	26,1	53,9	21,0	11.22.48,5		11.21.26,30	B.
	β Leonis.	22,2	35,9	50,3	4,1	18,2	31,6	11.40.46,0		11.40. 4,04	B.
	Σ 1690.	30,1	43,4	57,1	10,3	24,1	37,3	12.47.51,1		12.47.10,48	B.
	(h) Polaris SP.	35.30,3	43.55,2	52.11,7	0.47,3	9. 9,8	17.32,3	13.25.59,7		13. 0.43,76	B.
	(i) Polaris.	35.56,5	44.24,2	52.45,8	1.10,5	9.42,4	17.55,8	1.26.23,6		1. 1.11,26	B.
Apr. 20	(i) ☉ 1 L.	47,1	0,9	14,2	27,7	42,0	55,5	1.50. 9,3		1.49.28,10	B.
	☉ 2 L.	57,8	11,7	25,0	38,9	53,1	6,7	1.52.20,4		1.51.39,09	B.
	(i) Procyon.	22,9	36,5	50,2	3,8	17,1	30,7	7.30.44,0		7.30. 3,60	B.
	(i) Pollux.	55,1	10,3	25,1	40,8	56,2	11,4	7.35.26,5		7.34.40,77	B.
	ι Cancri.	23,9	39,2	54,9	10,2	25,9	41,0	8.36.56,4		8.36.10,21	B.
	Σ 1311.	38,9	53,3	8,1	22,7	37,6	52,0	8.58. 6,7		8.57.22,75	B.
	(i) α Hydræ.	11,0	24,4	38,1	51,6	5,3	18,9	9.19.32,4		9.18.51,67	B.
	(k) Σ 1396.	16,7	29,9	44,0	57,9	11,5	25,1	9.47.39,0		9.46.57,73	B.
	π Leonis.	13,4	26,9	40,7	54,2	8,0	21,6	9.51.35,1		9.50.54,27	B.
	Regulus.	18,8	32,4	46,1	59,9	14,4	27,8	9.59.41,4		9.59. 0,12	B.
	(k) Σ 1417.	49,4	3,7	18,1	32,3	47,0	0,6	10. 6.15,2		10. 5.32,33	B.
	☽ 1 L.	58,9	13,1	26,5	40,9	55,0	8,4	10.19.22,3		10.18.40,72	B.
	34 Sextantis.	50,1	3,9	17,2	30,9	44,2	57,5	10.34.11,2		10.33.30,71	B.
	(l) 40 Sextantis.	38,9	52,3	5,9	19,3	32,9	46,3	10.41. 0,1		10.40.19,39	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Cloudy.

(b) Great unsteadiness.

(g) Mistaken for Piazzi X. 67, which follows 20°.

(c) Uneven.

(d) Cloudy and extremely unsteady.

(h) Flaring.

(i) Great motion.

(e) Very unsteady.

(k) Very faint.

(f) The noted times have been increased 1°.

(l) This appears to be Σ 1476.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,48	+ 4,96	0,06	56,41	56,35	0,87	54,75	1. 1. 55,28	+ 47,10	Polaris SP.
			59,77	56,53	56,76	0,92	55,66	1. 1. 55,47	+ 46,98	Polaris.
			46,82					1. 36. 42,54		☉'s center.
			1,86	57,71	55,85			5. 6. 57,72	- 0,82	Rigel.
			23,93	19,73	55,80			5. 16. 19,79	- 1,24	β Tauri.
			29,63					6. 13. 25,53	- 1,51	μ Geminorum.
			46,54					6. 25. 42,45		☽ 1 L.
			49,92					6. 54. 45,84	- 1,73	ζ Geminorum.
			46,98					7. 10. 42,91	- 1,84	δ Geminorum.
			36,65	32,75	56,10			7. 24. 32,59	- 2,10	Castor.
			7,38	3,42	56,04			7. 31. 3,33	- 1,71	Procyon.
			44,39	40,47	56,08			7. 35. 40,34	- 2,08	Pollux.
			14,01					8. 37. 10,00	- 2,48	ι Cancri.
			41,96					8. 44. 37,95	- 2,56	ι² Cancri.
			26,48					8. 58. 22,48	- 2,48	Σ 1311. nf.
			55,71	51,54	55,83			9. 19. 51,73	- 2,13	α Hydræ.
			3,77	59,69	55,92			9. 59. 59,81	- 2,68	Regulus.
	- 3,36	+ 3,80	5,00	2,74	57,74	0,99	57,26	1. 1. 57,19	+ 46,49	β Leonis.
			59,39	57,02	57,63			1. 1. 56,08	+ 46,42	Polaris SP.
			57,73	57,09	59,36	1,05	58,31			Polaris.
			51,27					1. 47. 49,66		☉'s center.
			4,55	3,37	58,82			7. 31. 3,19	- 1,66	Procyon.
			41,75	40,42	58,67			7. 35. 40,39	- 2,03	Pollux.
			45,35					8. 35. 44,04	- 2,23	δ Cancri.
			39,12					8. 44. 37,81	- 2,50	ι³ Cancri.
			53,86					8. 49. 52,56	- 2,20	α² Cancri.
			23,59					8. 58. 22,29	- 2,43	Σ 1311. nf.
			52,89	51,51	58,62			9. 19. 51,61	- 2,10	α Hydræ.
			18,83					9. 24. 17,55		☽ 1 L.
			58,76					9. 47. 57,50	- 2,48	Σ 1396.
			55,23					9. 51. 53,97	- 2,47	π Leonis.
			0,97	59,66	58,69			9. 59. 59,72	- 2,55	Regulus.
			33,34					10. 6. 32,09	- 2,69	Σ 1417.
			59,16					10. 16. 57,92	- 2,58	44 Leonis.
			31,18					10. 21. 29,94	- 2,78	Σ 1439.
			59,59					10. 58. 58,38	- 2,78	Σ 1511. sf.
			25,71					11. 22. 24,52	- 4,46	Σ 1544. p.
			3,98	2,74	58,76			11. 41. 2,80	- 2,94	β Leonis.
			10,54					12. 48. 9,41	- 2,98	Σ 1690.
			57,24	57,17	59,93			1. 1. 56,12	+ 46,34	Polaris SP.
			57,92	57,26	59,34	1,03	59,34	1. 1. 57,30	+ 46,25	Polaris.
		+ 3,35	33,57					1. 51. 32,99		☉'s center.
			3,58	3,36	59,78			7. 31. 3,24	- 1,65	Procyon.
			40,60	40,41	59,81			7. 35. 40,26	- 2,02	Pollux.
			10,04					8. 37. 9,75	- 2,41	ι Cancri.
			22,62					8. 58. 22,34	- 2,42	Σ 1311.
			51,73	51,49	59,76			9. 19. 51,47	- 2,08	α Hydræ.
			57,68					9. 47. 57,44	- 2,47	Σ 1396.
			54,24					9. 51. 54,00	- 2,45	π Leonis.
			0,06	59,65	59,59			9. 59. 59,83	- 2,54	Regulus.
			32,23					10. 6. 32,00	- 2,68	Σ 1417.
			40,69					10. 19. 40,47		☽ 1 L.
			30,70					10. 34. 30,49	- 2,59	34 Sextantis.
			19,41					10. 41. 19,21	- 2,55	40 Sextantis.

April 20. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Apr. 20	<i>d</i> Leonis	46,1	59,7	13,2	27,1	40,5	54,1	10. 52. 7,4		10. 51. 26,87	B.
	Σ 1527	4,7	18,3	32,1	46,1	0,2	14,1	11. 10. 28,1		11. 9. 46,23	B.
	Σ 1544. <i>p.</i>	3,1	30,4	57,7	25,2	53,3	20,1	11. 22. 47,7		11. 21. 25,36	B.
	<i>β</i> Leonis	21,1	35,1	49,0	3,1	17,2	31,1	11. 40. 44,9		11. 40. 3,07	B.
	(<i>a</i>) Polaris SP.	35.29,7	43.57,5	52.16,6	0.50,2	9.14,0	17.35,6	13. 25. 55,8		13. 0. 45,63	B.
	(<i>b</i>) Polaris	35.53,7	44.24,2	52.40,7	1. 6,4	9.39,6	17.55,3	1. 26. 19,8		1. 1. 8,53	B.
Apr. 21	(<i>b</i>) ⊙ 1 L.	29,2	43,1	57,0	10,9	24,5	38,1	1. 53. 52,0		1. 53. 10,68	B.
	⊙ 2 L.	40,2	54,0	7,8	21,5	35,4	49,0	1. 56. 3,0		1. 55. 21,55	B.
	Σ 1396	15,1	29,1	42,9	56,9	10,5	24,2	9. 47. 37,8		9. 46. 56,64	B.
	(<i>c</i>) Regulus	18,0	31,6	45,3	59,2	13,6	27,1	9. 59. 40,3		9. 58. 59,30	B.
	(<i>d</i>) Σ 1417	48,1	2,6	16,8	31,1	45,9	0,1	10. 6. 14,0		10. 5. 31,23	B.
	44 Leonis	16,3	29,7	43,2	57,0	11,1	24,3	10. 16. 38,0		10. 15. 57,09	B.
	Σ 1439	45,8	0,1	15,0	29,1	43,6	57,9	10. 21. 12,5		10. 20. 29,15	B.
	(<i>e</i>) 34 Sextantis	49,1	2,9	16,2	30,4	43,7	57,1	10. 34. 10,2		10. 33. 29,94	B.
	40 Sextantis	37,9	51,3	4,8	18,1	32,1	45,2	10. 40. 59,0		10. 40. 18,35	B.
	(<i>f</i>) <i>d</i> Leonis	45,1	58,8	12,2	.....	.....	52,9	10. 52. 6,3	+ 2,72	10. 51. 25,78	B.
Apr. 22	(<i>b</i>) ⊙ 2 L.	23,0	37,0	50,9	4,9	19,0	31,9	1. 59. 46,2		1. 59. 4,70	B.
	(<i>b</i>) <i>β</i> Tauri	32,4	47,7	3,1	18,3	33,7	49,0	5. 16. 4,1		5. 15. 18,33	B.
	(<i>b</i>) <i>α</i> Orionis	55,6	9,7	23,1	36,4	50,2	3,7	5. 46. 17,1		5. 45. 36,54	B.
	Procyon	20,7	34,2	47,7	1,4	15,1	28,4	7. 30. 41,9		7. 30. 1,34	B.
	Pollux	52,7	8,0	23,1	38,3	54,0	9,1	7. 35. 24,2		7. 34. 38,49	B.
	<i>α</i> Hydræ	8,7	22,1	35,8	49,1	3,2	16,7	9. 19. 30,1		9. 18. 49,39	B.
	Regulus	16,2	30,1	43,8	58,1	12,1	25,3	9. 59. 39,1		9. 58. 57,82	B.
	44 Leonis	15,7	29,1	42,3	56,0	9,8	23,2	10. 16. 36,9		10. 15. 56,14	B.
	Σ 1439	44,9	59,0	13,4	27,9	42,9	57,0	10. 21. 11,5		10. 20. 28,09	B.
	40 Sextantis	37,1	50,1	3,6	17,1	30,8	44,2	10. 40. 57,8		10. 40. 17,25	B.
	Piazzi X. 229.	10,1	23,7	37,1	50,7	4,2	17,6	10. 55. 31,0		10. 54. 50,63	B.
	Piazzi XI. 9.	40,3	55,0	9,0	23,6	38,1	52,4	11. 5. 7,0		11. 4. 23,63	B.
	Σ 1527	2,1	15,9	29,9	44,0	58,1	11,7	11. 10. 25,9		11. 9. 43,94	B.
	<i>ν</i> Leonis	11,9	25,3	39,1	52,2	6,2	19,0	11. 28. 33,0		11. 27. 52,38	B.
	<i>β</i> Virginis	48,1	2,1	15,3	28,8	42,5	55,8	11. 42. 9,3		11. 41. 28,85	B.
	⊙ 1 L.	39,6	53,4	7,2	21,2	35,3	49,1	12. 8. 3,2		12. 7. 21,28	B.
	<i>γ</i> Virginis	58,1	11,7	25,2	38,7	52,5	6,3	12. 25. 19,8		12. 24. 38,90	B.
	ψ Virginis	28,7	42,2	55,8	9,5	23,2	36,9	12. 45. 50,3		12. 45. 9,52	B.
	(<i>g</i>) * N.P.D. 71°. 52'.	4,1	18,3	32,4	46,5	1,1	15,0	13. 8. 29,1		13. 7. 46,64	B.
	ζ Ursæ Majoris ...	24,2	47,7	12,1	35,5	0,1	23,4	13. 17. 47,3		13. 16. 35,76	B.
Apr. 23	(<i>h</i>) ⊙ 1 L.	54,3	9,1	22,7	37,0	51,1	4,8	2. 1. 18,3		2. 0. 36,76	B.
	⊙ 2 L.	6,8	20,3	34,2	48,0	2,2	16,1	2. 3. 29,7		2. 2. 48,19	B.
	(<i>b</i>) <i>β</i> Tauri	31,0	46,6	1,9	17,2	32,7	47,8	5. 16. 3,2		5. 15. 17,20	B.
	(<i>b</i>) <i>α</i> Orionis	54,6	8,4	21,8	35,3	49,1	2,7	5. 46. 16,2		5. 45. 35,44	B.
	Procyon	19,9	33,2	47,1	0,1	14,0	27,3	7. 31. 40,9		7. 31. 0,35	B.
	Pollux	51,9	7,1	22,1	37,4	52,9	8,1	7. 36. 23,7		7. 35. 37,60	B.
	(<i>i</i>) <i>α</i> Hydræ	7,7	21,1	34,7	48,3	2,1	15,6	9. 20. 29,2		9. 19. 48,39	B.
	Regulus	15,1	29,1	42,7	56,4	10,7	24,2	10. 0. 38,1		9. 59. 56,62	B.
	Piazzi X. 58. <i>p.</i> ...	51,0	14,0	36,4	59,0	22,0	44,1	10. 17. 7,0		10. 15. 59,08	B.
	(<i>i</i>) Σ 1460	26,1	44,1	.....	21,1	39,4	57,1	10. 32. 16,1	- 3,08	10. 31. 20,90	B.
	<i>γ</i> Virginis	57,0	10,2	24,1	37,5	51,3	4,9	12. 26. 18,3		12. 25. 37,62	B.
	(<i>i</i>) ψ Virginis	27,7	41,2	54,8	8,3	22,1	35,6	12. 46. 49,2		12. 46. 8,42	B.
	⊙ 1 L.	4,1	18,1	32,2	46,2	0,1	14,9	13. 4. 29,1		13. 3. 46,39	B.
	Spica	11,9	25,2	39,2	52,6	6,6	19,8	13. 17. 34,0		13. 16. 52,75	B.
Apr. 25	<i>x</i> Virginis	35,5	49,9	4,1	17,7	32,1	45,9	13. 42. 0,2		13. 41. 17,92	B.
	(<i>k</i>) Arcturus	44,5	59,3	13,3	27,4	42,1	56,2	14. 9. 10,4		14. 8. 27,60	B.
	(<i>b</i>) ⊙ 2 L.	35,0	48,8	2,4	16,2	29,9	44,0	2. 11. 58,0		2. 11. 16,31	B.
	<i>α</i> Hydræ	5,6	19,0	32,6	46,2	59,8	13,2	9. 20. 27,0		9. 19. 46,20	B.
	Regulus	13,2	26,8	41,0	54,4	8,3	22,1	10. 0. 36,1		9. 59. 54,56	B.
	Piazzi X. 58. ....	.....	.....	34,1	57,0	19,6	42,1	10. 17. 4,9	- 22,56	10. 15. 56,98	B.
	Σ 1460	23,2	42,0	0,1	18,4	37,0	55,1	10. 32. 13,9		10. 31. 18,53	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Flaming.

(b) Great motion.

(e) Faint and cloudy.

(f) Very cloudy.

(c) This observation giving a discordant rate of the clock is not used for clock-error: the rate and error of April 20 are continued.

(d) Very faint.

(g) Mistaken for Σ 1733.

(h) Much waving.

(i) Cloudy.

(k) Blazing.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,36	+ 3,35	26,86 46,15 24,78 2,99 58,39 55,86	2,73 57,35 57,45	59,74 58,96 61,59	1,03	59,34	10 . 52 . 26,67 11 . 10 . 45,97 11 . 22 . 24,61 11 . 41 . 2,83 1 . 1 . 58,29 1 . 1 . 56,27	- 2,67 - 2,85 - 4,45 - 2,93 + 46,16 + 46,06	<i>d</i> Leonis. Σ 1527. Σ 1544. <i>p</i> . β Leonis. Polaris SP. Polaris.
			16,07 56,59 59,24 31,13 57,04 29,03 29,93 18,37 25,77	59,64	60,40		60,37	1 . 55 . 16,52 9 . 47 . 57,38 10 . 0 . 0,04 10 . 6 . 31,93 10 . 16 . 57,85 10 . 21 . 29,84 10 . 34 . 30,75 10 . 41 . 19,20 10 . 52 . 26,61	- 2,46 - 2,53 - 2,67 - 2,56 - 2,76 - 2,58 - 2,54 - 2,65	☉'s center. Σ 1396. Regulus. Σ 1417. 44 Leonis. Σ 1439. 34 Sextantis. 40 Sextantis. <i>d</i> Leonis.
			4,65 18,17 36,51 1,32 38,32 49,45 57,76 56,09 27,97 17,27 50,62 23,51 43,87 52,39 28,84 21,33 38,96 9,58 46,54 35,29	19,66 38,31 3,33 40,37 51,47 59,63	61,49 61,80 62,01 62,05 62,02 61,87	1,03	61,54	2 . 0 . 6,28 5 . 16 . 19,94 5 . 46 . 38,30 7 . 31 . 3,18 7 . 35 . 40,19 9 . 19 . 51,39 9 . 59 . 59,73 10 . 16 . 58,07 10 . 21 . 29,95 10 . 41 . 19,27 10 . 55 . 52,63 11 . 5 . 25,53 11 . 10 . 45,89 11 . 28 . 54,42 11 . 42 . 30,88 12 . 8 . 23,39 12 . 25 . 41,03 12 . 46 . 11,67 13 . 8 . 48,64 13 . 17 . 37,40	- 1,17 - 1,12 - 1,62 - 1,98 - 2,06 - 2,52 - 2,55 - 2,74 - 2,53 - 2,66 - 2,90 - 2,83 - 2,75 - 2,85	☉ 2 L. β Tauri. α Orionis. Procyon. Pollux. α Hydræ. Regulus. 44 Leonis. Σ 1439. 40 Sextantis. Piazzi X. 229. Piazzi XI. 9. Σ 1527. υ Leonis. β Virginis.
			42,43 17,04 35,41 0,33 37,43 48,45 56,56 58,64 20,61 37,68 8,48 46,47 52,81 18,03 27,50	59,61	3,05	1,02	62,55	2 . 2 . 45,07 5 . 16 . 19,81 5 . 46 . 38,20 7 . 31 . 3,20 7 . 35 . 40,30 9 . 19 . 51,40 9 . 59 . 59,53 10 . 16 . 1,63 10 . 31 . 23,61 12 . 25 . 40,76 12 . 46 . 11,57 13 . 3 . 49,57 13 . 16 . 55,92 13 . 41 . 21,16 14 . 8 . 30,65	- 2,93 - 2,99 - 3,10 - 4,02	☉'s center. β Tauri. α Orionis. Procyon. Pollux. α Hydræ. Regulus. Piazzi X. 58. <i>p</i> . Σ 1460. <i>q</i> Virginis. ψ Virginis. ι 1 L. Spica. x Virginis. Arcturus.
	- 3,72	+ 2,99	16,21 46,22 54,46 56,50 18,20	51,42 59,59	5,20 5,13	0,91	4,73	2 . 11 . 21,02 9 . 19 . 51,30 9 . 59 . 59,57 10 . 16 . 1,62 10 . 31 . 23,33	- 2,01 - 2,48 - 3,60 - 3,24	☉ 2 L. α Hydræ. Regulus. Piazzi X. 58. Σ 1460.

 April 23. 5^h, the clock was put forward 1^m.

 April 28. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Apr. 25	Piazzi X. 229.	6,9	20,4	33,7	47,4	1,1	14,3	10.56.28,0		10.55.47,40	B.
	Piazzi XI. 9.			6,1	20,4	35,1	49,0	11. 6. 3,8	- 14,41	11. 5. 20,47	B.
	β Leonis.	15,9	29,6	43,4	57,5	12,1	25,8	11.41.39,3		11.40.57,66	B.
	(a) Σ 1727.	34,8			22,1		53,7	13. 3. 10,1	- 7,93	13. 2. 22,24	B.
	(b) * N.P.D. 71°. 52'.	1,2	15,0	29,1	43,2	57,7	12,1	13. 9. 26,1		13. 8. 43,48	B.
	ζ Ursæ Majoris ...	21,2	45,0	8,3	32,3	56,4	20,3	13.18.44,3		13.17.32,54	B.
	ϵ Bootis.	17,9	33,0	48,0	3,2	18,5	33,3	14.38.49,2		14.38. 3,30	B.
	α^2 Libræ.	25,1	38,9	52,7	7,1	21,2	34,7	14.42.48,8		14.42. 6,93	B.
	20 Libræ.	3,9	19,1	33,4	48,1	3,2	17,9	14.55.32,7		14.54.48,33	B.
	η 2 L.	50,6	5,4	20,3	35,4	51,1	5,8	15. 3. 20,9		15. 2. 35,65	B.
	κ Libræ.	6,4	20,7	35,1	48,9	3,9	17,8	15.33.31,9		15.32.49,25	B.
	π Scorpii.	31,6	46,5	1,7	16,4	31,3	46,1	15.50. 1,3		15.49.16,42	B.
	(c) α Arietis.	28,1	42,3	56,8	12,0	26,3	40,9	1.58.55,3		1.58.11,67	B.
Apr. 26	(c) \odot 1 L.	7,9	22,1	35,4	50,0	4,0	17,3	2.13.31,2		2.12.49,70	B.
	\odot 2 L.	19,4	33,3	47,1	1,8	15,5	29,2	2.15.43,1		2.15. 1,34	B.
	(c) Aldebaran.	4,8	18,7	32,9	46,9	1,2	14,7	4.27.28,8		4.26.46,86	B.
	(c) Rigel.	10,9	24,3	38,1	51,7	5,6	18,9	5. 7. 32,6		5. 6.51,73	B.
	(c) β Tauri.	28,0	43,2	58,4	14,1	29,5	44,2	5.16.59,7		5.16.13,87	B.
	ϵ Bootis.	17,0	32,1	47,2	2,6	17,9	33,2	14.38.48,1		14.38. 2,58	B.
	α^2 Libræ.	24,1	37,6	52,1	5,9	20,2	34,0	14.42.47,9		14.42. 5,97	B.
	κ Libræ.	5,9	20,0	34,0	48,2	3,1	16,8	15.33.31,1		15.32.48,45	B.
	(c) η 2 L.	27,7	43,0	58,3	14,0	29,4	44,7	16. 4. 0,2		16. 3.13,90	B.
	σ Scorpii.	48,1	3,1	18,0	32,9	47,9	3,0	16.12.17,6		16.11.32,94	B.
	(d) Antares.	56,1	11,2	26,3	41,3	56,1	11,1	16.20.26,0		16.19.41,15	B.
Apr. 27	(e) \odot 1 L.	53,4	7,7	21,0	35,0	49,1	3,0	2.17.16,7		2.16.35,13	B.
	\odot 2 L.	5,0	19,0	33,0	46,7	0,9	14,8	2.19.28,5		2.18.46,84	B.
	(c) Aldebaran.	4,1	17,8	32,0	46,0	0,1	13,9	4.27.28,0		4.26.45,99	B.
	(c) Rigel.	10,0	23,4	37,2	50,7	4,9	18,2	5. 7. 31,6		5. 6.50,85	B.
	(c) β Tauri.	27,1	42,4	57,8	12,9	28,5	43,9	5.16.59,0		5.16.13,08	B.
	α Hydræ.	3,7	17,0	30,8	44,3	58,1	11,7	9.20.25,1		9.19.44,39	B.
	Regulus.	11,4	25,2	39,1	53,2	6,7	20,2	10. 0. 34,1		9.59.52,84	B.
	Piazzi X. 67.	30,1	44,0	57,4	11,0	24,9	38,3	10.17.52,0		10.17.11,10	B.
	Σ 1457.	44,1	57,7	11,2	25,1	38,8	52,1	10.31. 5,8		10.30.24,97	B.
	(f) Σ 1464.	45,0		12,1	25,3		52,2	10.34. 6,1	- 2,66	10.33.25,48	B.
	Piazzi X. 229.	5,0	18,9	32,1	45,5	59,3	12,7	10.56.26,3		10.55.45,69	B.
	(e) Σ 1527.	57,0	11,1	24,7	39,0	53,1	7,0	11.11.20,7		11.10.38,96	B.
	(g) Σ 1727.	32,3		4,7	20,0			13. 3. 8,2	+ 4,01	13. 2.20,31	B.
	Σ 1751.		16,1	29,7	43,1	57,0	11,0	13.23.24,3	- 6,84	13.22.43,36	B.
	Σ 1760.	10,9	25,2	40,6		12,0	25,8	13.27.40,7	- 0,01	13.26.55,86	B.
	Σ 1813.			12,9	26,3	39,4	53,6	14. 6. 7,1	- 13,54	14. 5.26,32	B.
	(c) Polaris.	36.51,7	45.16,6	53.33,4	2. 3,5		18.51,5	1.27.17,4	+ 1.24,85	1. 2. 3,87	B.
Apr. 28	(c) \odot 1 L.	38,8	53,1	6,9	21,0	34,9	48,7	2.21. 2,8		2.20.20,88	B.
	\odot 2 L.	51,2	5,1	19,0	33,0	47,1	0,9	2.23.15,0		2.22.33,04	B.
	(h) Aldebaran.	3,1	17,2	31,0	44,7	59,0	13,0	4.27.26,9		4.26.44,99	B.
	(c) Rigel.	9,3	22,9	36,2	50,0	3,7	17,0	5. 7. 30,8		5. 6.49,98	B.
	(c) β Tauri.	26,1	41,7	56,7	12,2	27,7	42,8	5.16.58,1		5.16.12,18	B.
	(c) α Hydræ.	2,5	16,2	30,0	43,2	57,1	10,6	9.20.24,1		9.19.43,39	B.
	(i) Regulus.	10,1	24,0	37,9	51,7	5,6	19,2	10. 0. 33,1		9.59.51,65	B.
	Piazzi X. 67.	29,1	43,0	56,2	10,1	24,0	37,2	10.17.51,1		10.17.10,10	B.
	Σ 1464.	44,0	57,6	11,1	24,4	37,9	51,3	10.34. 5,1		10.33.24,49	B.
	Σ 1527.	56,1	10,2	24,1	37,7	52,1	6,1	11.11.20,0		11.10.38,05	B.
	A.S.C. 1359.	7,8	23,1	38,1	53,4	9,2	24,2	11.28.39,8		11.27.53,65	B.
	Σ 1606.	50,4	8,1	25,2	43,1	1,4	19,3	12. 3. 37,0		12. 2.43,50	B.
	Σ 1639.	41,0	56,2	11,0	26,0	40,9	55,9	12.17.11,0		12.16.26,00	B.
	(i) Polaris SP.	36.24,3	44.53,8	53. 7,5		10. 4,8		13.26.52,7	+ 3.21,78	13. 1.38,40	B.
	(a) Σ 1727.		48,1	3,6	19,2		51,3	13. 3. 7,1	- 6,33	13. 2.19,53	B.
	Σ 1813.	44,9	58,2	11,7	25,2	38,9	52,2	14. 6. 5,9		14. 5.25,29	B.
	(k) * N.P.D. 32°. 34'.		1,1	25,2	50,2	15,2	40,0	14.12. 5,1	- 12,49	14.10.50,31	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

- (a) Extremely faint. (b) Mistaken for Σ 1733. (c) Great motion. (d) A large disk. (e) Cloudy.
 (f) Very faint. This observation and those of the same star on April 28 and 29 have each been increased 1^m.
 (g) Very faint. Wire 11 was set down 51,1, which being discordant is rejected. (h) Cloudy and unsteady.
 (i) Flaring. (k) The star between Σ 1830 and Σ 1831. See May 2.

29

[illegible]

TRANSITS OBSERVED IN THE YEAR 1842.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Apr. 28	Σ 1831.....	...	10,3	35,1	59,7	25,1	49,3	14.12.14,5	-12,51	14.10.59,82	B.
	(a) α Andromedæ	20,3	35,8	50,9	5,9	21,7	36,9	0.0.52,0		0.0.6,22	B.
	(a) Polaris	36.49,2	45.16,7	...	2.3,3	10.31,8	18.52,5	1.27.19,7	-1.24,41	1.2.4,46	B.
	(b) α Arietis	25,1	39,7	54,4	9,1	23,9	...	1.58.53,1	+4,85	1.58.9,06	B.
Apr. 29	(a) ⊙ 1 L.	25,2	39,1	53,1	7,1	21,2	34,8	2.24.48,2		2.24.6,96	B.
	⊙ 2 L.	37,7	51,3	5,3	19,3	33,4	47,0	2.27.1,4		2.26.19,35	B.
	(a) Aldebaran	2,1	15,7	29,5	43,9	58,1	12,1	4.27.26,1		4.26.43,93	B.
	(a) Rigel	8,0	21,4	35,0	48,8	2,5	16,0	5.7.29,5		5.6.48,75	B.
	(a) β Tauri	25,1	40,3	55,7	11,1	26,4	41,3	5.16.57,0		5.16.10,98	B.
	(a) α Hydræ	1,7	15,2	28,6	42,1	56,1	9,5	9.20.22,9		9.19.42,30	B.
	Regulus	9,1	23,0	36,9	50,6	5,2	18,3	10.0.32,1		9.59.50,74	B.
	Piazzi X. 67.....	28,0	41,7	55,3	8,7	22,6	36,1	10.17.50,1		10.17.8,93	B.
	Σ 1457	42,2	55,8	9,4	22,8	36,5	49,9	10.31.4,0		10.30.22,94	B.
	Σ 1464 .....	...	...	9,9	23,3	37,5	50,8	10.34.4,6	-13,46	10.33.23,76	B.
	88 Leonis	47,1	1,2	15,1	29,1	43,1	57,0	11.24.11,1		11.23.29,10	B.
	A.S.C. 1359.....	6,8	21,9	37,2	52,7	8,2	23,3	11.28.39,0		11.27.52,73	B.
	Σ 1564	29,1	44,2	59,4	15,0	30,2	45,2	11.32.0,7		11.31.14,83	B.
	(c) Σ 1582	3,3	18,1	32,0	47,3	2,1	16,0	11.48.30,9		11.47.47,10	B.
	Piazzi XII. 33....	17,1	30,7	44,1	57,3	11,1	24,1	12.10.38,1		12.9.57,50	B.
	Σ 1639	40,0	55,0	9,8	25,1	40,2	55,0	12.17.10,0		12.16.25,02	B.
	(d) Polaris SP.....	36.27,4	44.47,7	53.14,5	1.37,6	10.7,3	...	13.....	+8.24,13	13.1.39,03	B.
	Σ 1751	0,2	14,1	27,3	41,2	54,9	8,3	13.23.22,2		13.22.41,17	B.
	Σ 1760	8,1	23,2	38,4	53,8	8,7	23,8	13.27.39,1		13.26.53,58	B.
	* N.P.D. 32°. 34'.	34,1	58,9	24,0	48,9	14,3	38,6	14.12.4,2		14.10.49,00	B.
	Σ 1831	43,3	8,9	33,4	59,1	24,4	48,7	14.12.14,2		14.10.58,86	B.
	(e) ε Bootis	14,1	29,2	44,3	59,4	14,9	30,2	14.38.45,0		14.37.59,59	B.
	(f) Polaris	36.50,6	45.17,8	53.36,3	2.1,2	10.27,4	18.48,3	1.27.17,7		1.2.2,76	B.
	(b) α Arietis .....	...	39,1	53,4	8,0	23,0	...	1.58.52,4	-2,92	1.58.8,26	B.
Apr. 30	(f) ⊙ 1 L.	12,3	26,1	40,0	54,1	8,1	21,8	2.28.36,1		2.27.54,07	B.
	⊙ 2 L.	24,2	38,2	52,3	6,4	20,6	34,3	2.30.48,3		2.30.6,33	B.
	(b) Rigel	7,1	20,6	34,2	47,7	1,6	14,9	5.7.28,6		5.6.47,82	B.
	(b) β Tauri	24,2	39,6	54,7	10,0	25,7	40,8	5.16.56,2		5.16.10,17	B.
	α Hydræ	0,6	14,1	27,7	41,4	55,1	8,7	9.20.22,2		9.19.41,40	B.
	Regulus	8,4	22,2	36,0	50,1	3,9	17,3	10.0.31,1		9.59.49,85	B.
	Piazzi X. 58. p....	44,1	7,1	29,2	52,0	15,0	37,0	10.16.59,7		10.15.52,01	B.
	Σ 1460	18,7	37,1	55,2	13,7	32,3	50,2	10.32.9,0		10.31.13,74	B.
	Σ 1521. p.....	59,8	14,9	29,9	45,1	1,1	15,7	11.7.31,2		11.6.45,39	B.
	88 Leonis	46,2	0,3	14,1	28,0	42,1	56,0	11.24.10,0		11.23.28,10	B.
	A.S.C. 1359.....	5,7	21,0	36,2	51,7	7,2	22,3	11.28.37,9		11.27.51,71	B.
	(g) Σ 1564	28,9	44,0	59,0	14,1	29,2	44,7	11.31.59,9		11.31.14,25	B.
	(h) Σ 1585 .....	...	47,4	5,9	23,4	42,2	59,7	11.49.16,4	-9,04	11.48.23,46	B.
	Σ 1606	48,1	5,9	23,7	41,1	59,2	16,8	12.3.34,7		12.2.41,35	B.
	(i) Piazzi XII. 33....	...	30,2	...	56,4	10,2	23,6	12.10.37,1	-10,80	12.9.56,70	B.
	Σ 1639	39,1	54,1	8,8	24,1	39,1	54,2	12.17.9,1		12.16.24,07	B.
	24 Comæ Beren. f.	23,0	36,8	51,2	5,4	20,1	34,0	12.27.48,1		12.27.5,52	B.
	Σ 1719	28,9	42,3	56,1	9,7	23,1	36,2	12.59.49,7		12.59.9,43	B.
	(k) Polaris SP.....	36.26,6	44.53,7	53.9,4	1.34,6	10.8,2	18.25,7	13.26.47,8		13.1.38,00	B.
	* N.P.D. 32°. 34'.	32,9	58,1	23,1	48,0	13,2	38,0	14.12.3,1		14.10.48,06	B.
	Σ 1831	43,1	7,9	32,1	58,0	23,1	48,1	14.12.13,3		14.10.57,95	B.
	ε Bootis	13,3	28,3	43,4	58,5	14,3	29,1	14.38.44,2		14.37.58,73	B.
May 1	(l) ⊙ 2 L.	50,1	4,8	19,0	33,2	48,1	2,3	20.43.16,8		20.42.33,47	B.
	(h) α Andromedæ	17,6	33,1	48,0	3,5	19,1	23,9	0.0.49,3		0.0.3,50	B.
	(h) α Arietis .....	...	...	51,7	6,5	21,2	35,2	1.58.49,8	-14,57	1.58.6,31	B.
May 2	(a) ⊙ 1 L.	47,2	1,8	16,1	30,0	43,9	58,0	2.36.11,9		2.35.29,84	B.
	⊙ 2 L.	0,1	14,3	28,1	42,4	56,4	10,3	2.38.24,5		2.37.42,30	B.
	(a) Aldebaran	58,9	13,1	27,1	40,8	55,1	9,2	4.27.23,1		4.26.41,04	B.
	(a) Rigel	5,1	18,8	32,3	46,2	59,8	13,2	5.7.27,1		5.6.46,07	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

- | | | | |
|-------------------------------|-------------------------|---|----------------------|
| (a) Great motion. | (b) Faint and unsteady. | (f) Great unsteadiness. | (g) Extremely faint. |
| (c) Irregular intervals. | | (h) Faint. | (i) Hazy. |
| (d) Cloudy and badly defined. | | (k) A large unsteady disk. | |
| (e) Very cloudy. | | (l) Unsteady. The noted times have been diminished 10°. | |

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,46	- 3,72	+ 2,99	59,27 6,02 51,59 8,91	14,60 0,54 17,38	8,58 8,95 8,47	1,02 0,97	7,47 8,53	14. 11. 7,34 0. 0. 14,55 1. 2. 0,16 1. 58. 17,52	- 3,90 - 0,62 + 42,97 - 0,57	Σ 1831. α Andromedæ. Polaris. α Arietis.
			13,06					2. 25. 21,69		☉'s center.
			43,81	52,50	8,69			4. 26. 52,52	- 0,85	Aldebaran.
			48,78	57,59	8,81			5. 6. 57,52	- 0,70	Rigel.
			10,78	19,61	8,83			5. 16. 19,52	- 1,12	β Tauri.
			42,32	51,37	9,05			9. 19. 51,23	- 1,96	α Hydræ.
			50,64	59,54	8,90			9. 59. 59,57	- 2,43	Regulus.
			8,85					10. 17. 17,80	- 2,47	Piazzi X. 67.
			22,87					10. 30. 31,82	- 2,50	Σ 1457.
			23,73					10. 33. 32,68	- 2,46	Σ 1464.
			29,00					11. 23. 37,99	- 2,82	88 Leonis.
			52,53					11. 28. 1,52	- 3,03	A.S.C. 1359.
			14,63					11. 31. 23,62	- 3,03	Σ 1564.
			46,95					11. 47. 55,96	- 3,00	Σ 1582.
			57,49					12. 10. 6,51	- 2,86	Piazzi XII. 33.
			24,84					12. 16. 33,87	- 3,12	Σ 1639.
			51,91	0,74	8,83			1. 2. 0,97	+ 42,77	Polaris SP.
			41,09					13. 22. 50,16	- 3,09	Σ 1751.
			53,40					13. 27. 2,47	- 3,21	Σ 1760.
			48,45					14. 10. 57,55	- 3,90	* N.P.D. 32°. 34'.
			58,31					14. 11. 7,41	- 3,90	Σ 1831.
			59,39	8,41	9,02			14. 38. 8,51	- 3,16	ε Bootis.
		+ 2,56	50,53	0,93	10,40	0,92	9,43	1. 2. 0,00	+ 42,58	Polaris.
			8,09	17,39	9,30			1. 58. 17,60	- 0,58	α Arietis.
			0,08					2. 29. 9,61		☉'s center.
			47,82	57,58	9,76			5. 6. 57,45	- 0,69	Rigel.
			9,96	19,60	9,64			5. 16. 19,59	- 1,11	β Tauri.
			41,39	51,35	9,96			9. 19. 51,18	- 1,94	α Hydræ.
			49,73	59,52	9,79			9. 59. 59,54	- 2,41	Regulus.
			51,53					10. 16. 1,35	- 3,48	Piazzi X. 58. p.
			13,41					10. 31. 23,24	- 3,15	Σ 1460.
			45,18					11. 6. 55,04	- 2,95	Σ 1521. p.
			27,98					11. 23. 37,85	- 2,82	88 Leonis.
			51,50					11. 28. 1,37	- 3,01	A.S.C. 1359.
			14,04					11. 31. 23,91	- 3,02	Σ 1564.
			23,13					11. 48. 33,01	- 3,37	Σ 1585.
			41,04					12. 2. 50,93	- 3,37	Σ 1606.
			56,67					12. 10. 6,57	- 2,86	Piazzi XII. 33.
			23,87					12. 16. 33,77	- 3,11	Σ 1639.
			5,37					12. 27. 15,28	- 3,04	24 Comæ Beren. f.
			9,37					12. 59. 19,30	- 3,02	Σ 1719.
			50,20	1,12	10,92			1. 2. 0,13	+ 42,39	Polaris SP.
			47,51					14. 10. 57,48	- 3,90	* N.P.D. 32°. 34'.
			57,40					14. 11. 7,37	- 3,90	Σ 1831.
			58,52	8,42	9,90			14. 38. 8,51	- 3,17	ε Bootis.
	- 3,74		33,52			0,83	10,55	20. 42. 44,79		δ 2 L.
			3,29	14,67	11,38		11,38	0. 0. 14,67	- 0,69	α Andromedæ.
			6,13	17,42	11,29			1. 58. 17,58	- 0,61	α Arietis.
			35,94					2. 36. 47,41		☉'s center.
			40,91	52,49	11,58			4. 26. 52,44	- 0,84	Aldebaran.
			46,07	57,57	11,50			5. 6. 57,63	- 0,68	Rigel.

 May 4. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
May 2	(a) β Tauri	22,2	37,5	52,7	8,1	23,7	39,1	5.16.54,2		5.16.8,22	B.
	α Hydræ.....	58,7	12,4	25,9	39,6	53,0	6,7	9.20.20,4		9.19.39,53	B.
	Regulus	6,5	20,3	34,1	47,8	2,1	15,2	10.0.29,1		9.59.47,87	B.
	Σ 1457.....	39,8	53,1	6,7	20,1	33,9	47,2	10.31.1,0		10.30.20,25	B.
	88 Leonis.....	44,2	58,4	12,9	26,2	40,4	54,1	11.24.8,3		11.23.26,36	B.
	Σ 1564.....	26,2	42,0	57,0	12,1	28,0	42,9	11.31.58,1		11.31.12,33	B.
	(b) Σ 1582.....	1,5	16,3	30,0	44,5	59,2	14,0	11.48.29,0		11.47.44,93	B.
	(b) Σ 1619. f.	13,3	27,1	40,2	53,8	7,4	21,1	12.7.34,4		12.6.53,90	B.
	(b) * N.P.D. 64°. 8'...	36,0	50,9	5,7	21,1	36,1	50,6	12.14.6,0		12.13.20,91	B.
	24 Comæ Beren. f.	21,4	35,2	49,2	3,8	17,9	32,1	12.27.46,5		12.27.3,73	B.
	Σ 1719.....	27,2	40,6	54,1	7,6	20,9	34,2	12.59.48,1		12.59.7,53	B.
	Σ 1751.....	57,8	11,1	25,2	38,5	52,2	5,9	13.23.20,0		13.22.38,68	B.
	(a) 81 Virginis.....	30,2	43,3	57,0	10,3	24,1	38,0	13.29.51,3		13.29.10,60	B.
	A.S.C. 1585	52,1	6,1	19,3	32,8	46,4	0,1	13.47.13,5		13.46.32,90	B.
	Σ 1830.....	15,7	39,7	5,4	30,5	54,3	20,2	14.11.46,0		14.10.30,25	B.
	(c) δ 2 L.....	54,9	8,4	22,3	36,9	51,1	5,0	21.30.19,2		21.29.36,83	B.
	(c) α Aquarii.....	49,2	2,7	16,0	29,4	43,1	56,5	21.58.10,1		21.57.29,58	B.
May 3	(a) \odot 1 L.....	36,1	50,7	4,3	18,3	32,8	46,4	2.40.0,3		2.39.18,42	B.
	\odot 2 L.....	49,1	3,2	16,9	31,2	45,4	59,1	2.42.13,3		2.41.31,17	B.
	(c) Aldebaran.....	58,2	12,4	26,3	40,4	54,3	8,2	4.27.22,3		4.26.40,30	B.
	(c) Rigel.....	4,6	18,0	31,3	45,2	58,8	12,3	5.7.26,1		5.6.45,19	B.
	(c) β Tauri.....	21,4	36,7	52,0	7,4	23,2	38,3	5.16.53,9		5.16.7,56	B.
May 4	(c) Regulus.....	4,7	18,9	32,6	46,2	0,1	13,5	10.0.28,1		9.59.46,30	B.
	Piazzi XI. 9.....	29,0	43,1	57,5	12,2	26,7	40,9	11.5.55,1		11.5.12,07	B.
	(c) Σ 1566.....			0,1	14,7	29,1	43,7	11.32.58,2	- 14,50	11.32.14,66	B.
	β Leonis.....	7,8	21,3	35,4	49,4	4,0	17,2	11.41.31,1		11.40.49,46	B.
	Σ 1582.....	59,1	13,8	28,1	42,7	57,4	12,1	11.48.26,7		11.47.42,84	B.
	Σ 1619.....	11,9	25,2	38,4	52,1	5,7	19,1	12.7.33,0		12.6.52,20	B.
	Piazzi XII. 33....	13,1	26,1	39,5	52,8	7,1	20,2	12.10.33,3		12.9.53,16	B.
	* N.P.D. 64°. 8'...	34,1	49,2	4,1	19,2	34,2	48,7	12.14.4,1		12.13.19,09	B.
	Σ 1719.....	25,0	39,1	52,2	6,0	19,4	32,9	12.59.46,1		12.59.5,81	B.
	(c) Spica.....				42,1	56,0	9,9	13.17.23,3	- 20,53	13.16.42,29	B.
	(c) Σ 1760.....	4,0		34,0	48,7		19,1	13.27.34,2	- 2,99	13.26.49,01	B.
	(d) Arcturus.....	34,2	48,8	2,9	17,2	31,7	46,2	14.9.0,1		14.8.17,30	B.
	Σ 1988.....	29,1	43,2	57,0	11,0	24,9	38,7	15.49.52,6		15.49.10,92	B.
	(c) δ Ophiuchi.....	13,6	27,1	40,3	54,1	8,0	21,1	16.6.34,3		16.5.54,07	B.
	(c) α Pegasi.....	59,3	13,2	27,2	40,9	55,1	8,8	22.57.22,7		22.56.41,02	B.
	(c) δ 2 L.....	26,0	39,7	53,5	7,4	21,3	35,0	22.59.48,6		22.59.7,36	B.
	(c) α Andromedæ....	15,1	30,4	45,8	0,9	16,6	31,4	0.0.47,1		0.0.1,04	B.
	(e) Polaris.....	36.48,3	45.14,7	53.34,2	1.57,7		18.46,5	1.27.13,4	+ 1.24,82	1.2.0,62	B.
May 9	\odot 1 L.....	40,2	54,2	8,4	22,4	36,8	51,0	3.3.5,2		3.2.22,60	B.
	\odot 2 L.....	54,0	8,1	22,0	36,1	50,5	4,2	3.5.18,6		3.4.36,22	B.
	(c) Rigel.....			26,2	40,3	53,7	7,2	5.7.20,8	- 13,60	5.6.40,04	B.
	(c) Procyon.....	4,9	18,4	31,8	45,3	59,1	12,5	7.31.26,2		7.30.45,46	B.
	(c) Pollux.....	36,9	52,1	7,3	22,7	38,1	53,2	7.36.8,7		7.35.22,71	B.
	(e) Polaris.....	36.47,7	45.10,4	53.26,2	1.57,5	10.26,3	18.45,6	1.27.12,2		1.1.57,99	B.
May 10	(f) Σ 1830.....	9,0		58,0		48,7	13,2	14.11.38,5	- 9,99	14.10.23,49	B.
	Σ 1870.....	13,5	27,1	40,5	54,3	8,2	21,9	14.35.35,1		14.34.54,37	B.
	Σ 1896. f.....	28,2	47,2	6,3	24,9	44,1	3,1	14.53.22,0		14.52.25,11	B.
	(f) Σ 1934.....	39,1	57,7	16,2	34,9	54,0	12,9	15.12.32,1		15.11.35,27	B.
	(f) Σ 1943.....	51,8	5,3	18,7	32,9	46,7	59,4	15.20.13,3		15.19.32,58	B.
	(g) α Coronæ Borealis	59,1	14,2	29,3	44,5	59,9	15,2	15.28.30,3		15.27.44,64	B.
	(g) α Serpentis.....		47,1	0,3	13,9	27,6	41,2	15.36.54,5	- 6,78	15.36.13,99	B.
	Σ 1988. f.....	24,2	37,9	51,9	6,0	19,7	33,5	15.49.47,1		15.49.5,76	B.
	δ Ophiuchi.....	8,3	21,6	35,2	48,8	2,3	15,8	16.6.29,2		16.5.48,75	B.
	(h) Juno.....	10,1	23,8	37,1	50,3	3,7	27,4	16.30.31,3		16.29.50,53	B.
	(e) Polaris.....	36.44,3	45.11,7	53.32,4	1.54,6	10.29,4	18.44,7	1.27.13,2		1.1.58,61	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

(a) Great motion.
 (b) Very faint. The star N.P.D. 64°. 8' was taken for Σ 1634, by a mistake in the setting-angle. So on May 4 and 13.

(c) Cloudy.
 (d) Clouded, then blazing.
 (e) Cloudy and unsteady.
 (f) Extremely faint.
 (g) Wire I being written down confusedly 28,2, is rejected.
 (h) Faint.

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May 11. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	1.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
May 10	(a) α Arietis.....	15,0	29,1	43,9	58,4	13,6	27,4	1. 58. 41,8		1. 57. 58,46	B.
May 12	(b) Σ 1870.....			38,4	52,2	6,1	19,8	14. 35. 33,0	- 13,61	14. 34. 52,29	B.
	ϵ Bootis.....		17,7	32,8	48,0	3,3	18,1	14. 38. 33,8	- 7,61	14. 37. 48,01	B.
	α Coronæ Borealis	57,2	12,7	27,7	42,5	57,9	13,2	15. 28. 28,2		15. 27. 42,77	B.
	α Serpentis.....	31,0	44,6	58,1	12,1	25,7	39,3	15. 36. 52,9		15. 36. 11,95	B.
	(b) Σ 1988. f.....			50,1	3,6	17,9	31,6	15. 49. 45,0	- 13,81	15. 49. 3,83	B.
	δ Ophiuchi.....	6,8	20,0	33,3	46,9	0,8	14,2	16. 6. 27,4		16. 5. 47,06	B.
May 13	(c) \odot 2 L.....	28,2	42,4	56,8	11,2	25,2	39,7	3. 20. 53,3		3. 20. 10,97	B.
	Procyon.....	1,0	14,7	28,0	41,6	55,1	8,6	7. 31. 22,1		7. 30. 41,58	B.
	Pollux.....	32,9	48,2	3,6	18,9	34,2	49,5	7. 36. 4,8		7. 35. 18,87	B.
	Σ 1585.....	17,2	35,1	53,2	11,6	30,0	47,9	11. 49. 6,0		11. 48. 11,57	B.
	(b) Σ 1619. f.....	2,9	16,7	29,9	43,9	57,7	11,1	12. 7. 24,4		12. 6. 43,80	B.
	* N.P.D. 64°. 8'...	26,1	41,5	55,9	10,8	25,9	40,5	12. 13. 56,0		12. 13. 10,95	B.
	24 Comæ Beren. f.	10,6	25,1	39,4	53,8	8,2	22,2	12. 27. 36,4		12. 26. 53,67	B.
	35 Comæ Berenices	28,9	43,1	57,5	12,4	27,0	41,3	12. 45. 56,1		12. 45. 12,33	B.
	(d) Polaris SP.....	36.18,3		53. 4,8	1.35,3	9.55,5	18.21,2	13. 26. 46,5	- 2. 47,58	13. 1. 32,69	B.
	(e) 81 Virginis.....	19,9	33,2	47,1	0,8	14,1	28,0	13. 29. 41,3		13. 29. 0,62	B.
	A.S.C. 1585.....	42,2	55,9	9,2	23,1	36,7	50,2	13. 47. 4,0		13. 46. 23,04	B.
	(e) Σ 1830.....	6,1	31,1	55,6	21,0	46,2	10,4	14. 11. 36,1		14. 10. 20,93	B.
	Σ 1870.....	10,2	24,1	37,7	51,2	4,9	19,0	14. 35. 32,3		14. 34. 51,34	B.
	(e) Σ 1896.....			3,2	21,9	41,2	0,1	14. 53. 18,9	- 18,93	14. 52. 22,13	B.
	α Coronæ Borealis	56,3	11,5	27,1	41,9	57,1	12,1	15. 28. 26,9		15. 27. 41,84	B.
	α Serpentis.....	30,3	43,7	57,3	11,1	24,4	38,1	15. 36. 52,0		15. 36. 10,98	B.
	δ Ophiuchi.....	5,2	19,1	32,4	46,0	59,7	13,2	16. 6. 26,7		16. 5. 46,04	B.
May 14	(f) \odot 1 L.....	8,4	22,8	37,2	51,4	5,8	20,0	3. 22. 34,1		3. 21. 51,38	B.
	\odot 2 L.....	23,0	37,4	51,4	6,0	20,4	34,4	3. 24. 48,8		3. 24. 5,92	B.
	Arcturus.....	25,1	39,4	53,9	8,2	22,8	37,1	14. 8. 51,4		14. 8. 8,27	B.
	ϵ Bootis.....	0,7	15,8	31,1	46,2	1,6	16,3	14. 38. 31,9		14. 37. 46,23	B.
May 16	(f) \odot 1 L.....	59,2	13,7	28,0	42,3	56,7	11,1	3. 30. 25,4		3. 29. 42,34	B.
	\odot 2 L.....	14,4	28,9	43,0	57,3	12,1	26,1	3. 32. 40,3		3. 31. 57,45	B.
	(g) Pollux.....	30,1	45,1	0,6	15,8	31,1	46,4	7. 35.	+ 7,65	7. 35. 15,83	B.
	(h) \odot 1 L.....			17,1	31,0	45,1	59,2	9. 7. 13,4	- 14,25	9. 6. 30,91	B.
	(i) α Hydræ.....	45,8	59,3	2,9	26,7	40,3	53,8	9. 20. 7,4		9. 19. 26,60	B.
	(i) 14 Leonis.....	39,4	53,0	6,4	19,9	34,1	47,9	9. 33. 1,4		9. 32. 20,30	B.
	Regulus.....	53,2	7,1	21,0	34,7	48,9	2,3	10. 0. 16,1		9. 59. 34,76	B.
	(i) Σ 1585.....	14,2	32,1	50,3	8,8	27,0	45,7	11. 49. 3,1		11. 48. 8,75	B.
	Σ 1634.....	38,9	53,5	8,1	23,1	38,0	52,9	12. 13. 7,6		12. 12. 23,15	B.
	35 Comæ Berenices	25,9	40,5	54,9	9,5	23,9	38,4	12. 45. 53,1		12. 45. 9,46	B.
	(k) Polaris SP.....	36.15,5		53. 1,3	1.37,4	9.53,7	18.19,8	13. 26. 42,5	- 2. 47,56	13. 1. 30,81	B.
	81 Virginis.....	16,9	30,7	44,2	57,4	11,2	25,1	13. 29. 38,3		13. 28. 57,69	B.
	A.S.C. 1585.....	39,1	52,9	6,4	20,1	34,0	47,1	13. 47. 0,9		13. 46. 20,07	B.
	ϵ Bootis.....	58,3	13,9	29,2	44,2	59,6	14,4	14. 38. 29,9		14. 37. 44,21	B.
	(l) Σ 1943.....	46,9	0,4	13,8	27,2	40,6	54,3	15. 20. 8,1		15. 19. 27,33	B.
	(l) Σ 1953.....			34,2	48,1	1,3	15,0	15. 25. 28,4	- 13,54	15. 24. 47,86	B.
	(m) α Coronæ Borealis	52,9	8,3	23,8	39,3	54,2	9,1	15. 28. 24,2		15. 27. 38,83	B.
	δ Ophiuchi.....	2,7	16,1	29,3	43,2	56,9	10,3	16. 6. 23,8		16. 5. 43,18	B.
May 17	α Hydræ.....	44,9	58,6	12,1	25,6	39,8	53,0	9. 20. 6,8		9. 19. 25,83	B.
	(n) \odot 1 L.....	54,0	8,0	21,7	35,4	49,8	3,5	10. 2. 17,3		10. 1. 35,67	B.
	(g) Polaris SP.....				1.32,3	9.58,8	18.22,5	13. 26. 45,3	- 12. 36,58	13. 1. 33,14	B.
	(g) Arcturus.....	22,2	36,8	51,3	5,4	20,1	34,0	14. 8. 47,8		14. 8. 5,37	B.
May 19	σ Leonis.....	53,7	8,1	20,8	34,4	48,1	1,7	11. 13. 15,0		11. 12. 34,54	B.
	ν Leonis.....	46,3	59,9	13,2	26,9	40,3	53,9	11. 29. 7,3		11. 28. 26,83	B.
	β Leonis.....	53,7	7,4	21,2	35,1	49,3	3,4	11. 41. 17,2		11. 40. 35,33	B.
	\odot 1 L.....	8,2	22,0	35,8	49,4	3,4	17,2	11. 48. 31,1		11. 47. 49,59	B.
	(o) η Virginis.....	44,9	58,1	11,5	25,2	38,7	52,2	12. 12. 5,4		12. 11. 25,14	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

- (a) Cloudy and faint. Grouped with the preceding clock stars. (b) Hazy and very faint. (c) Waving.
 (d) Flaming. (e) Extremely faint. (f) Much unsteadiness, and a glare of confused light in the field. (g) Cloudy.
 (h) Haze and unsteadiness. (i) Faint. (k) An unsteady blur. (l) Both very faint, the second the fainter.
 (m) Wire II was set down 9,3 and is altered by considering the intervals. (n) Uneven. (o) Much disturbed.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,46	-3,96	+2,45	58,27	17,56	19,29	0,91	19,18	1 . 58 . 17,52	-0,75	α Arietis.
			52,19			1,01	20,08	14 . 35 . 12,88	-3,22	Σ 1870.
			47,79	8,49	20,70			14 . 38 . 8,48	-3,24	ϵ Bootis.
			42,55	3,18	20,63			15 . 28 . 3,28	-3,19	α Coronæ Borealis.
			11,85	32,63	20,78			15 . 36 . 32,59	-3,24	α Serpentis.
			3,70					15 . 49 . 24,45	-3,20	Σ 1988. f.
			46,93	7,73	20,80			16 . 6 . 7,69	-3,32	δ Ophiuchi.
			10,81			0,95	21,15	3 . 20 . 32,09		\odot 2 L.
			41,49	3,07	21,58			7 . 31 . 2,94	-1,36	Procyon.
			18,63	40,08	21,45			7 . 35 . 40,08	-1,69	Pollux.
			11,22					11 . 48 . 32,84	-3,19	Σ 1585.
			43,77					12 . 7 . 5,40	-2,76	Σ 1619. f.
			10,73					12 . 13 . 32,36	-2,99	* N.P.D. 64°. 8'.
			53,51					12 . 27 . 15,15	-2,96	24 Comæ Beren. f.
			12,14					12 . 45 . 33,79	-3,06	35 Comæ Beren.
			45,19	7,59	22,40			1 . 2 . 6,86	+35,92	Polaris SP.
			0,60					13 . 29 . 22,28	-3,12	81 Virginis.
			23,02					13 . 46 . 44,72	-3,18	A.S.C. 1585.
			20,36					14 . 10 . 42,07	-3,84	Σ 1830.
			51,24					14 . 35 . 12,97	-3,22	Σ 1870.
			21,75					14 . 52 . 43,49	-3,39	Σ 1896.
			41,62	3,18	21,56			15 . 28 . 3,38	-3,19	α Coronæ Borealis.
			10,88	32,64	21,76			15 . 36 . 32,65	-3,25	α Serpentis.
			45,91	7,75	21,84			16 . 6 . 7,70	-3,34	δ Ophiuchi.
			58,49			0,90	21,97	3 . 23 . 20,59		\odot 's center.
			8,09	30,63	22,54					Arcturus.
			46,01	8,49	22,48					ϵ Bootis.
	-4,33		49,71			0,94	24,14	3 . 31 . 13,99		\odot 's center.
			15,57	40,05	24,48			7 . 35 . 40,01	-1,66	Pollux.
			30,76					9 . 6 . 55,26		η 1 L.
			26,56	51,15	24,59			9 . 19 . 51,06	-1,74	α Hydræ.
			20,16					9 . 32 . 44,67	-2,04	14 Leonis.
			34,61	59,33	24,72			9 . 59 . 59,14	-2,22	Regulus.
			8,36					11 . 48 . 32,96	-3,14	Σ 1585.
			22,93					12 . 12 . 47,55	-2,94	Σ 1634.
			9,25					12 . 45 . 33,89	-3,03	35 Comæ Beren.
			44,02	9,19	25,17			1 . 2 . 8,67	+34,32	Polaris SP.
			57,65					13 . 29 . 22,32	-3,12	81 Virginis.
			20,03					13 . 46 . 44,71	-3,17	A.S.C. 1585.
			43,96	8,50	24,54			14 . 38 . 8,67	-3,25	ϵ Bootis.
			27,22					15 . 19 . 51,96	-3,27	Σ 1943.
			47,75					15 . 25 . 12,49	-3,28	Σ 1953.
			38,59	3,21	24,62			15 . 28 . 3,33	-3,22	α Coronæ Borealis.
			43,03	7,79	24,76			16 . 6 . 7,80	-3,38	δ Ophiuchi.
			25,80	51,14	25,34	0,86	24,98			α Hydræ.
			35,55					10 . 2 . 0,89		η 1 L.
			46,35	9,69	23,34			1 . 2 . 11,80	+33,82	Polaris SP.
			5,17	30,63	25,46					Arcturus.
		+2,31	34,41			0,93	26,80	11 . 13 . 1,64	-2,51	σ Leonis.
			26,74					11 . 28 . 53,98	-2,53	ν Leonis.
			35,16	2,50	27,34			11 . 41 . 2,41	-2,70	β Leonis.
			49,53					11 . 48 . 16,79		η 1 L.
			25,05					12 . 11 . 52,32	-2,76	η Virginis.

 May 20. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
May 19	A.S.C. 1440.....	27,0	40,4	54,0	7,9	21,9	35,3	12.22.49,0		12.22.7,93	B.
	(a) γ Virginis.....	32,8	46,3	59,9	13,2	27,3	40,7	12.25.54,3		12.25.13,50	B.
	(a) Polaris SP.....	36.17,4	.....	53.2,2	.....	.....	.....	13.26.47,5	+ 2.49,61	13.1.31,98	B.
	(b) Arcturus.....	20,4	34,9	49,2	3,9	18,4	32,2	14.8.46,9		14.8.3,70	B.
	Σ 1882.....	21,5	49,7	18,1	46,3	15,6	44,1	14.41.12,1		14.39.46,77	B.
	α Coronæ Borealis	51,2	6,1	21,2	36,1	51,4	6,4	15.28.21,3		15.27.36,25	B.
	α Serpentis.....	24,9	38,2	52,0	5,4	18,9	32,2	15.36.46,1		15.36.5,39	B.
	δ Ophiuchi.....	59,9	13,3	26,8	40,1	53,7	7,2	16.6.21,0		16.5.40,28	B.
May 23	(c) \odot 1 L.....	46,8	1,4	16,0	30,2	44,7	58,9	3.58.13,2		3.57.30,17	B.
	\odot 2 L.....	3,0	17,2	31,5	46,0	0,9	15,1	4.0.29,4		3.59.46,16	B.
	Regulus.....	47,1	1,0	14,5	28,3	42,4	55,9	10.0.9,6		9.59.28,40	B.
	β Leonis.....	49,9	3,8	17,6	31,7	45,7	59,5	11.41.13,9		11.40.31,72	B.
	35 Comæ Berenices	19,9	34,5	48,9	3,1	17,9	32,1	12.45.46,8		12.45.3,31	B.
	(d) Polaris SP.....	36.19,4	.....	52.58,7	1.29,8	9.55,3	18.15,5	13.26.42,4	- 2.47,52	13.1.29,33	B.
	Σ 1882.....	17,4	45,9	14,2	43,1	11,6	39,9	14.41.8,2		14.39.42,90	B.
	ι Libræ.....	3,0	17,8	31,6	46,0	0,6	14,3	15.3.29,1		15.2.46,06	B.
	α Coronæ Borealis	47,1	2,2	17,2	32,4	47,7	2,9	15.28.18,1		15.27.32,51	B.
May 24	β Leonis.....	48,9	2,8	16,9	30,8	45,0	58,9	11.41.12,9		11.40.30,88	B.
	(e) Polaris SP.....	36.18,6	44.47,5	53.1,3	1.34,5	9.56,7	18.17,2	13.26.41,8		13.1.31,09	B.
	α Coronæ Borealis	45,3	1,4	16,4	31,5	47,2	2,1	15.28.16,9		15.27.31,54	B.
	(a) β^1 Scorpii.....	4,1	18,8	33,1	47,2	2,0	15,8	15.56.30,2		15.55.47,32	B.
	δ Ophiuchi.....	55,4	9,2	22,3	35,8	49,4	3,2	16.6.16,3		16.5.35,94	B.
	(f) \odot 2 L.....	21,9	37,1	52,9	8,1	24,0	39,0	16.36.54,5		16.36.8,22	B.
	θ Ophiuchi.....	6,1	21,2	35,7	50,7	5,4	20,2	17.12.35,2		17.11.50,64	B.
	(d) Polaris.....	36.43,7	45.11,5	.....	1.54,6	10.25,7	.....	1.27.7,4	+ 1.39,82	1.1.56,40	B.
May 25	β Leonis.....	48,0	2,1	16,1	30,1	43,9	58,1	11.41.11,8		11.40.30,01	B.
	A.S.C. 1440.....	21,2	35,1	48,6	2,2	16,2	30,0	12.22.43,4		12.22.2,38	B.
	(d) Polaris SP.....	36.20,2	44.44,6	53.1,7	1.29,3	9.55,5	18.16,6	13.26.42,7		13.1.30,09	B.
May 26	β Leonis.....	46,9	1,0	15,0	29,1	43,1	56,7	11.41.11,1		11.40.28,99	B.
	(g) A.S.C. 1440.....	20,4	34,2	48,1	1,5	15,3	29,0	12.22.42,9		12.22.1,63	B.
May 27	α Arietis.....	59,5	13,9	28,1	42,9	57,1	11,9	1.58.26,5		1.57.42,84	B.
May 28	(h) \odot 1 L.....	53,3	7,6	21,8	36,6	51,3	5,7	4.18.20,0		4.17.36,62	B.
	\odot 2 L.....	10,0	24,2	38,2	53,2	8,0	22,2	4.20.36,4		4.19.53,17	B.
	(d) Castor.....	.....	25,0	40,9	57,0	13,0	28,8	7.24.44,9	- 7,96	7.23.56,97	B.
	Procyon.....	47,1	0,7	14,0	27,4	41,1	54,3	7.31.8,0		7.30.27,52	B.
	(d) Pollux.....	.....	.....	.....	4,9	20,1	34,9	7.35.50,8	- 22,99	7.35.4,68	B.
	α Coronæ Borealis	42,4	57,2	12,2	28,1	43,2	58,1	15.28.12,9		15.27.27,73	B.
	α Serpentis.....	16,8	30,1	43,3	57,1	10,9	24,1	15.36.38,0		15.35.57,19	B.
	δ Ophiuchi.....	51,3	5,1	18,3	32,1	45,5	58,9	16.6.12,3		16.5.31,93	B.
May 29	(i) α Arietis.....	57,6	12,1	26,5	41,1	55,4	9,9	1.58.24,5		1.57.41,01	B.
May 30	(k) \odot 1 L.....	.....	.....	27,9	42,7	57,2	11,6	4.26.26,2	- 14,52	4.25.42,60	B.
	\odot 2 L.....	15,9	30,2	44,8	59,5	14,0	28,3	4.28.43,0		4.27.59,39	B.
	(a) Procyon.....	44,8	58,2	11,6	25,2	39,1	52,2	7.31.5,8		7.30.25,27	B.
	(a) Pollux.....	16,8	31,9	46,6	2,3	17,7	33,1	7.35.48,1		7.35.2,35	B.
	(l) Regulus.....	40,0	54,0	7,5	21,4	35,2	49,0	10.0.3,1		9.59.21,45	B.
	(g) Σ 1734.....	25,8	39,3	52,6	6,1	19,3	33,1	13.12.46,3		13.12.6,07	B.
	Σ 1793.....	29,9	45,1	0,1	15,2	30,2	45,1	13.52.0,1		13.51.15,10	B.
	(m) Σ 1807.....	53,2	6,6	20,1	33,9	47,2	0,6	14.3.14,2		14.2.33,69	B.
May 31	(d) \odot 1 L.....	2,3	16,9	31,2	46,1	.....	.....	4.30.30,0	+ 8,74	4.29.46,04	B.
	\odot 2 L.....	19,2	33,9	48,1	2,9	18,0	32,1	4.32.46,5		4.32.2,95	B.
	Procyon.....	43,8	57,2	10,9	24,3	38,1	51,3	7.31.5,0		7.30.24,37	B.
	(a) Pollux.....	16,0	31,3	46,2	1,8	17,4	32,3	7.35.47,2		7.35.1,74	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEF*.
From May 27..... WEST. *GFEDCB*.

(a) Cloudy. (b) Blazing. (c) Great waving. (d) Cloudy and unsteady. (e) Unsteady. (f) Waving.
(g) Very faint. (h) Very unsteady, and much confused light. The semi-diameter by the observation being too small,
the noted times for 1 L have been diminished 1". (i) Hazy and faint. (k) Cloudy and waving. (l) Very unsteady.
(m) Very faint. The observer was doubtful which star was taken. Probably the preceding; see May 31.

Error of Collima- tion.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock ap- parently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.						
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.							
- 0,46	- 4,33	+ 2,31	7,78			0,93	26,80	12 . 22 . 35,06	- 2,85	A.S.C. 1440.						
			13,47					12 . 25 . 40,75	- 2,82	γ Virginis.						
			44,97	10,77	25,80			1 . 2 . 12,27	+ 32,74	Polaris SP.						
			3,50	30,63	27,13			14 . 8 . 30,85	- 3,16	Arcturus.						
			46,06					14 . 40 . 13,43	- 3,66	Σ 1882.						
			36,00	3,23	27,23			15 . 28 . 3,40	- 3,24	α Coronæ Borealis.						
			5,27	32,70	27,43			15 . 36 . 32,67	- 3,31	α Serpentis.						
			40,12	7,82	27,70			16 . 6 . 7,54	- 3,41	δ Ophiuchi.						
	- 4,26		{	37,97			0,89	30,51	3 . 59 . 8,63		☉'s center.					
				28,24	59,25	31,01			9 . 59 . 59,12	- 2,14	Regulus.					
				31,55	2,46	30,91			11 . 41 . 2,49	- 2,66	β Leonis.					
				3,11					12 . 45 . 34,09		35 Comæ Beren.					
				42,19	13,59	31,40			1 . 2 . 13,18	+ 29,92	Polaris SP.					
				42,20					14 . 40 . 13,26	- 3,89	Σ 1882.					
				46,08					15 . 3 . 17,15	- 3,60	♄ Libræ.					
				32,26	3,25	30,99			15 . 28 . 3,34	- 3,26	α Coronæ Borealis.					
				30,71	2,45	31,74			0,84	31,43	11 . 41 . 2,55	- 2,65	β Leonis.			
				43,95	14,36	30,41	1 . 2 . 15,83	+ 29,15			Polaris SP.					
				31,29	3,25	31,96	15 . 28 . 3,26	- 3,26			α Coronæ Borealis.					
				47,34			15 . 56 . 19,33	- 3,75			β ³ Scorpii.					
				35,78	7,88	32,10	16 . 6 . 7,77	- 3,47			δ Ophiuchi.					
				8,30			16 . 36 . 40,31				♃ 2 L.					
				50,71			17 . 12 . 22,74	- 3,94			θ Ophiuchi.					
				43,46	14,75	31,29	1 . 2 . 15,67	+ 28,76			Polaris.					
				29,84	2,44	32,60	0,88	32,17					β Leonis.			
				2,23					12 . 22 . 34,85	- 2,81	A.S.C. 1440.					
				42,95	15,13	32,18			1 . 2 . 15,60	+ 28,38	Polaris SP.					
				28,82	2,43	33,61			1,04	33,10			β Leonis.			
				1,48							12 . 22 . 35,12	- 2,80	A.S.C. 1440.			
				- 0,60	- 5,02	+ 2,05			42,55	17,93	35,38	1,09	35,26	1 . 58 . 17,90	- 1,12	α Arietis.
									44,63					4 . 19 . 20,09		☉'s center.
									56,61	32,23	35,62			7 . 24 . 32,31	- 1,58	Castor.
							27,35	2,96	35,61	7 . 31 . 2,95	- 1,25			Procyon.		
4,34	39,95	35,61	7 . 35 . 39,94				- 1,56	Pollux.								
27,41	3,27	35,86	15 . 28 . 3,37				- 3,28	α Coronæ Borealis.								
57,01	32,76	35,75	15 . 36 . 32,98				- 3,37	α Serpentis.								
31,71	7,92	36,21	16 . 6 . 7,70				- 3,51	δ Ophiuchi.								
40,72	17,98	37,26	1,05				37,45	1 . 58 . 18,26	- 1,17	α Arietis.						
50,73								4 . 27 . 28,37		☉'s center.						
25,10	2,95	37,85						7 . 31 . 2,88	- 1,24	Procyon.						
2,01	39,94	37,93						7 . 35 . 39,79	- 1,55	Pollux.						
21,23	59,17	37,94						9 . 59 . 59,12	- 2,06	Regulus.						
5,90								13 . 12 . 43,93	- 2,98	Σ 1734.						
14,78								13 . 51 . 52,84	- 3,15	Σ 1793.						
33,57								14 . 3 . 11,63	- 3,21	Σ 1807.						
- 5,09	{	54,22					1,07	38,47	4 . 31 . 32,89		☉'s center.					
		24,20	2,95		38,75				7 . 31 . 3,00	- 1,24	Procyon.					
		1,39	39,93		38,54				7 . 35 . 40,20	- 1,54	Pollux.					

The Transit was levelled May 26. 2^h, and May 27. 6^h, and the determinations of Level error were - 4",41 and - 4",12, the mean of which is used.

May 27. 6½^h, the Transit was reversed and Error of Collimation determined.

May 27. 7^h, and June 2. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
May 31	Piazzi XIII. 127..	57,0	10,7	24,0	37,5	50,9	4,3	13.26.18,1	- 16,86	13.25.37,50	B.
	Σ 1768.....	.....	.....	34,7	51,0	7,9	24,2	13.30.40,9		13.29.50,88	B.
	(a) Σ 1793.....	29,0	44,0	58,9	14,2	29,1	43,7	13.51.59,3		13.51.14,03	B.
	(b) Σ 1807.....	52,1	5,8	19,4	33,0	46,3	59,6	14.3.13,2		14.2.32,77	B.
	ε Bootis.....	44,1	59,2	14,1	29,4	45,1	0,1	14.38.15,0		14.37.29,58	B.
	(c) α Coronæ Borealis	38,9	54,0	8,8	24,2	39,4	54,8	15.28.9,9		15.27.24,28	B.
	δ 2 L.....	37,5	51,3	5,0	19,0	33,0	46,8	22.41.0,5		22.40.19,02	B.
	(d) γ Piscium.....	41,0	54,4	7,8	21,2	34,7	48,2	23.9.1,8		23.8.21,30	B.
	(e) Polaris.....	.....	.....	53.25,3	1.56,7	10.20,4	18.42,2	1.27.6,8		1.1.54,97	B.
June 1	(e) ⊙ 1 L.....	.....	.....	35,7	50,3	5,0	19,3	4.34.34,0	- 14,55	4.33.50,31	B.
	⊙ 2 L.....	23,3	37,9	52,7	7,3	22,0	36,4	4.36.51,0		4.36.7,23	B.
	Castor.....	4,9	20,9	36,3	52,6	8,8	24,4	7.24.40,5		7.23.52,63	B.
	(c) Procyon.....	42,7	56,2	9,4	23,1	37,1	50,2	7.31.4,0		7.30.23,24	B.
	(c) Pollux.....	14,3	29,7	44,8	0,4	15,6	31,1	7.35.45,9		7.35.0,25	B.
	Polaris SP.....	36.11,8	44.40,3	52.59,4	1.22,8	9.53,7	.....	13.....		+ 8.23,30	B.
	(e) Piazzi XIII. 127..	.....	9,6	23,0	36,4	.....	3,2	13.26.17,0		- 5,40	B.
	Σ 1768.....	59,1	16,0	32,7	49,8	6,8	23,2	13.30.40,3		13.29.49,70	B.
	Σ 1776.....	41,1	0,6	19,8	40,0	59,7	19,2	13.35.38,8		13.34.39,89	B.
	Σ 1793.....	28,0	43,1	58,0	13,2	28,1	43,1	13.51.58,2		13.51.13,10	B.
	Σ 1807.....	51,1	4,9	18,1	31,9	45,1	58,7	14.3.12,2		14.2.31,71	B.
	ε Bootis.....	43,1	58,3	13,2	28,9	43,9	59,1	14.38.14,3		14.37.28,69	B.
June 2	(f) ⊙ 1 L.....	11,2	25,5	.....	.....	.....	24,2	4.38.39,0	- 0,01	4.37.54,96	B.
	⊙ 2 L.....	28,2	.....	.....	.....	.....	41,3	4.40.56,0		4.40.12,12	B.
	Procyon.....	41,8	55,5	9,1	22,5	36,1	49,4	7.31.3,1		7.30.22,50	B.
	Pollux.....	13,7	29,0	44,1	59,6	14,9	30,0	7.35.45,3		7.34.59,52	B.
	(g) β Leonis.....	39,9	54,1	8,3	22,4	36,4	50,1	11.41.3,9		11.40.22,15	B.
	(e) Polaris SP.....	36.15,2	44.43,6	.....	.....	.....	.....	13.26.43,5		+ 5.35,35	B.
	(c) ε Bootis.....	42,3	58,2	12,7	28,2	43,1	58,1	14.38.14,0		14.37.28,09	B.
	δ 2 L.....	28,7	42,8	56,2	10,3	24,0	37,9	0.9.52,0		0.9.10,27	B.
	Polaris.....	36.42,4	45.10,2	53.26,5	1.56,4	10.20,6	18.39,7	1.27.5,5		1.1.54,47	B.
	(g) α Arietis.....	54,3	8,7	23,1	37,8	52,1	6,4	1.58.20,7		1.57.37,59	B.
June 3	(h) ⊙ 1 L.....	15,7	30,2	44,6	59,7	14,3	28,9	4.42.43,8	+ 8.23,28	4.41.59,60	B.
	⊙ 2 L.....	33,4	48,0	2,3	17,3	31,8	46,1	4.45.1,1		4.44.17,15	B.
	(e) Castor.....	3,1	19,2	34,7	51,0	7,0	22,5	7.24.39,0		7.23.50,92	B.
	(e) Procyon.....	40,9	54,4	8,2	21,5	35,1	48,4	7.31.2,1		7.30.21,51	B.
	(e) Pollux.....	12,7	28,1	43,2	58,6	13,9	29,0	7.35.44,5		7.34.58,57	B.
	β Leonis.....	37,9	53,1	6,7	20,8	34,8	48,5	11.41.2,8		11.40.20,65	B.
	Polaris SP.....	36.10,7	44.38,6	52.58,2	1.20,5	9.51,7	.....	13.....		13.1.23,22	B.
	Piazzi XIII. 127..	54,7	8,1	21,7	35,0	48,2	1,8	13.26.15,1		13.25.34,94	B.
	Σ 1768.....	57,0	14,1	30,7	47,9	5,1	21,9	13.30.38,4		13.29.47,87	B.
	(i) Σ 1823.....	46,2	59,7	13,1	27,1	41,0	54,9	14.8.8,3		14.7.27,19	B.
	ε Bootis.....	41,3	57,1	11,9	27,3	42,3	57,1	14.38.12,8		14.37.27,12	B.
	δ Ophiuchi.....	45,3	58,9	12,2	26,2	40,0	53,2	16.6.6,9		16.5.26,10	B.
	(k) δ 2 L.....	3,5	18,0	31,4	45,5	59,9	14,0	0.56.27,7		0.55.45,71	B.
	(i) Polaris.....	36.43,7	45.13,3	53.26,7	1.57,5	10.22,4	18.42,7	1.27.8,6		1.1.56,41	B.
	(e) α Arietis.....	52,4	7,2	21,1	36,0	50,9	5,3	1.58.20,1		1.57.36,15	B.
June 4	⊙ 1 L.....	21,5	36,2	50,8	5,3	20,1	34,2	4.46.49,0		4.46.5,30	B.
	⊙ 2 L.....	39,0	53,6	8,0	22,7	37,3	51,9	4.49.6,3		4.48.22,68	B.
	Pollux.....	12,0	26,9	42,1	57,7	13,1	28,2	7.35.43,5		7.34.57,65	B.
June 5	(l) Aldebaran.....	27,1	41,0	54,8	9,3	23,2	37,0	4.26.50,8		4.26.9,03	B.
June 6	⊙ 1 L.....	33,7	47,9	3,0	17,4	32,2	46,8	4.55.1,4	+ 0,01	4.54.17,49	B.
	⊙ 2 L.....	51,2	6,1	20,3	35,1	49,9	4,2	4.57.19,0		4.56.35,11	B.
	(c) Castor.....	0,7	16,9	32,2	.....	4,6	20,1	7.24.36,1		7.23.48,44	B.
	Procyon.....	38,4	52,2	5,4	19,1	32,6	46,0	7.30.59,5		7.30.19,03	B.
	(c) Pollux.....	10,1	25,6	41,0	56,2	11,7	27,1	7.35.42,1		7.34.56,26	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Extremely faint.
 (b) Noted as 'South Star.' The south is the preceding.
 (c) Cloudy. (d) Faint. (e) Unsteady.
 (f) Cloudy and very unsteady. (g) Hazy.

(h) Great motion, and much confused light.
 (i) Very faint.
 (k) Faint and ragged.
 (l) Faint and unsteady.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,09	+ 2,05	37,36			1,07	38,47	13.26.16,43	- 3,04	Piazzi XIII. 127.
			50,46					13.30.29,53	- 3,16	Σ 1768.
			13,70					13.51.52,79	- 3,14	Σ 1793.
			32,65					14. 3.11,74	- 3,21	Σ 1807.
			29,24	8,49	39,25	0,86	38,81	14.38. 8,36	- 3,24	ε Bootis.
			23,95	3,28	39,33			15.28. 3,11	- 3,29	α Coronæ Borealis.
			18,92					22.40.58,54		δ 2 L.
			21,14					23. 9. 0,78	- 2,08	γ Piscium.
			39,98	19,41	39,43			1. 2.19,69	+ 24,10	Polaris.
			58,49					4.35.38,32		☉'s center.
			52,26	32,21	39,95			7.24.32,20	- 1,56	Castor.
			23,07	2,95	39,88			7.31. 3,01	- 1,24	Procyon.
			59,90	39,93	40,03			7.35.39,84	- 1,54	Pollux.
			39,68	19,74	40,06			1. 2.19,82	+ 23,77	Polaris SP.
			36,30					13.26.16,45	- 3,04	Piazzi XIII. 127.
			49,29					13.30.29,44	- 3,15	Σ 1768.
			39,35					13.35.19,51	- 3,29	Σ 1776.
			12,77					13.51.52,94	- 3,13	Σ 1793.
			31,59					14. 3.11,76	- 3,21	Σ 1807.
			28,35	8,49	40,14			14.38. 8,54	- 3,24	ε Bootis.
		+ 2,19	3,26			0,74	40,31	4.39.43,71		☉'s center.
			22,33	2,94	40,61			7.31. 2,87	- 1,23	Procyon.
			59,18	39,93	40,75			7.35.39,72	- 1,54	Pollux.
			21,91	2,36	40,45			11.41. 2,58	- 2,56	β Leonis.
			44,45	20,43	35,98	1,02	41,22	1. 2.25,16	+ 23,08	Polaris SP.
			27,76	8,48	40,72			14.38. 8,52	- 3,23	ε Bootis.
			10,10					0. 9.51,33		δ 2 L.
			39,27	20,79	41,52			1. 2.20,53	+ 22,72	Polaris.
			37,31	18,09	40,78			1.58.18,61	- 1,28	α Arietis.
			8,10					4.43.49,52		☉'s center.
			50,55	32,20	41,65			7.24.32,08	- 1,55	Castor.
			21,35	2,94	41,59			7.31. 2,89	- 1,23	Procyon.
			58,23	39,92	41,69			7.35.39,77	- 1,53	Pollux.
			20,41	2,35	41,94			11.41. 2,13	- 2,55	β Leonis.
			38,22	21,16	42,94			1. 2.19,99	+ 22,35	Polaris SP.
			34,81					13.26.16,60	- 3,03	Piazzi XIII. 127.
			47,46					13.30.29,25	- 3,13	Σ 1768.
			26,99					14. 8. 8,81	- 3,16	Σ 1823.
			26,79	8,48	41,69			14.38. 8,63	- 3,23	ε Bootis.
			25,89	7,97	42,08			16. 6. 7,79	- 3,56	δ Ophiuchi.
			45,51			0,92	42,25	0.56.27,80		δ 2 L.
			41,21	21,54	40,33			1. 2.23,50	+ 21,97	Polaris.
			35,87	18,11	42,24					α Arietis.
			13,71					4.47.56,14		☉'s center.
			57,31	39,92	42,61	0,70	43,82			Pollux.
			8,80	52,74	43,94			4.26.52,75	- 1,09	Aldebaran.
			26,02					4.56. 9,98		☉'s center.
			48,08	32,20	44,12			7.24.32,12	- 1,55	Castor.
			18,87	2,93	44,06	- 1,22	- 1,53	7.31. 2,91		Procyon.
			55,93	39,92	43,99			7.35.39,97		Pollux.

An unusual acceleration of the clock's rate continues through the first half of June.
June 8. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
June 6	Σ 1734.....	19,1	32,9	46,1	59,8	13,2	26,7	13. 12. 40,1		13. 11. 59,70	B.
	Σ 1817.....	39,8	55,1	9,9	25,2	40,9	55,5	14. 7. 10,2		14. 6. 25,23	B.
	(a) Piazzì XIV. 62....	55,9	9,6	22,9	36,6	50,1	3,7	14. 14. 17,1		14. 13. 36,56	B.
	(b) Piazzì XIV. 70....	.....	.....	17,2	30,9	44,9	58,3	14. 16. 11,9	- 13,70	14. 15. 30,94	B.
	(c) ε Bootis.....	38,9	54,2	9,2	24,8	39,9	55,1	14. 38. 10,2		14. 37. 24,61	B.
	(c) Σ 1953.....	47,1	0,5	13,9	27,9	.....	54,2	15. 24.	+ 10,84	15. 24. 27,56	B.
	(d) α Serpentis.....	8,1	21,6	35,2	49,0	2,4	15,8	15. 36. 29,1		15. 35. 48,75	B.
	δ Ophiuchi.....	43,3	56,9	10,2	23,8	37,3	50,7	16. 6. 4,3		16. 5. 23,79	B.
	(e) Aldebaran.....	26,3	40,3	54,1	8,4	22,3	36,1	4. 26. 50,4		4. 26. 8,28	B.
June 7	⊙ 1 L.....	40,2	54,9	9,9	24,3	38,7	53,2	4. 59. 7,9		4. 58. 24,16	B.
	⊙ 2 L.....	57,9	12,7	27,0	41,9	56,6	11,3	5. 1. 25,9		5. 0. 41,90	B.
	(e) Castor.....	0,1	16,1	31,7	48,1	3,9	19,9	7. 24. 35,9		7. 23. 47,96	B.
	(e) Procyon.....	37,8	51,4	5,1	18,6	32,1	45,2	7. 30. 59,1		7. 30. 18,47	B.
	(f) Pollux.....	9,4	25,0	39,8	55,4	10,9	25,8	7. 35. 41,3		7. 34. 55,37	B.
	(b) Σ 1816.....	25,3	40,9	56,5	12,1	26,9	42,4	14. 6. 58,2		14. 6. 11,75	B.
	(g) Piazzì XIV. 62....	55,1	8,7	22,2	36,0	49,9	3,2	14. 14. 17,0		14. 13. 36,01	B.
	ζ Bootis.....	13,2	27,1	40,9	55,1	9,3	23,0	14. 33. 37,2		14. 32. 55,11	B.
	(h) ε Bootis.....	38,1	53,2	8,3	24,2	39,1	54,2	14. 38. 9,3		14. 37. 23,77	B.
	Σ 1884.....	57,1	11,9	27,1	41,7	56,4	11,2	14. 41. 26,1		14. 40. 41,64	B.
	(c) Σ 1953.....	.....	.....	14,1	27,7	41,2	54,6	15. 25. 7,9	- 13,53	15. 24. 27,57	B.
	α Serpentis.....	7,8	21,1	34,4	48,1	2,1	15,3	15. 36. 28,9		15. 35. 48,25	B.
	Σ 2087. sf.....	32,0	46,7	1,1	16,0	30,7	45,3	16. 36. 0,2		16. 35. 16,00	B.
	56 Herculis.....	8,1	22,6	38,2	52,9	8,1	22,6	16. 48. 37,9		16. 47. 52,91	B.
	(b) α Ophiuchi.....	13,8	27,1	41,1	55,1	8,7	22,1	17. 27. 36,2		17. 26. 54,87	B.
	Saturn 1 L.....	20,0	.....	48,7	.....	19,0	.....	18. 55. 47,9	+ 0,02	18. 55. 3,92	B.
	Saturn 2 L.....	.....	38,2	.....	7,4	.....	36,4	18. 55.	- 0,03	18. 55. 7,30	B.
June 8	(i) ⊙ 1 L.....	47,3	2,3	16,7	31,6	46,1	0,9	5. 3. 15,4		5. 2. 31,47	B.
	⊙ 2 L.....	5,3	20,1	34,2	49,3	4,0	18,8	5. 5. 33,3		5. 4. 49,29	B.
	(e) Castor.....	59,4	15,3	31,0	47,1	3,0	18,9	7. 24. 34,6		7. 23. 47,04	B.
	(i) Procyon.....	37,2	50,7	4,2	17,9	31,2	44,8	7. 30. 58,2		7. 30. 17,75	B.
	(i) Pollux.....	9,1	24,0	39,2	54,7	10,1	25,1	7. 35. 40,6		7. 34. 54,69	B.
	(k) Σ 1817.....	38,2	54,0	8,9	24,2	39,1	54,2	14. 7. 9,5		14. 6. 24,01	B.
	(k) Piazzì XIV. 62....	55,1	8,8	22,2	36,2	49,7	3,0	14. 14. 16,3		14. 13. 35,97	B.
	(l) Σ 1847.....	49,9	.....	16,4	.....	44,2	57,6	14. 20. 11,4	- 5,44	14. 19. 30,46	B.
	Σ 1866.....	40,0	54,0	7,4	21,2	35,0	48,4	14. 34. 2,2		14. 33. 21,17	B.
	ε Bootis.....	38,1	53,2	8,0	23,3	38,5	54,1	14. 38. 9,0		14. 37. 23,45	B.
	Σ 1884.....	56,3	11,3	26,1	41,1	56,2	10,9	14. 41. 25,9		14. 40. 41,11	B.
	(m) Antares.....	17,7	32,4	47,3	2,2	17,8	32,2	16. 19. 47,2		16. 19. 2,40	B.
	(b) Σ 2087. sf.....	31,1	46,0	0,9	16,0	30,1	45,0	16. 35. 59,9		16. 35. 15,57	B.
	56 Herculis.....	7,4	22,3	36,9	52,3	7,8	22,2	16. 48. 37,1		16. 47. 52,28	B.
	(m) α Ophiuchi.....	13,1	27,1	40,6	54,3	8,2	22,1	17. 27. 36,1		17. 26. 54,50	B.
	Saturn 1 L.....	3,7	.....	33,0	.....	2,0	.....	18. 55. 31,1	+ 0,02	18. 54. 47,47	B.
	Saturn 2 L.....	.....	21,6	.....	50,8	.....	19,8	18. 55.	- 0,03	18. 54. 50,70	B.
June 9	Procyon.....	36,7	50,4	3,9	17,3	30,9	44,2	7. 30. 57,8		7. 30. 17,32	B.
	Pollux.....	8,3	23,7	39,0	54,2	9,7	25,0	7. 35. 40,2		7. 34. 54,30	B.
	(l) Σ 1823.....	42,8	56,1	9,5	23,5	37,4	51,3	14. 8. 4,7		14. 7. 23,61	B.
	Σ 1866.....	39,0	53,1	6,5	20,4	34,1	48,1	14. 34. 1,5		14. 33. 20,38	B.
	ε Bootis.....	36,9	52,2	7,2	22,5	38,1	53,2	14. 38. 8,2		14. 37. 22,61	B.
	Σ 1884.....	56,1	10,9	25,4	40,8	55,2	10,2	14. 41. 25,2		14. 40. 40,54	B.
	Σ 1919 sp.....	14,2	29,1	42,9	57,1	11,5	25,9	15. 5. 40,2		15. 4. 57,27	B.
	α Serpentis.....	6,1	20,0	33,1	47,0	0,7	14,1	15. 36. 28,0		15. 35. 47,00	B.
	(n) Antares.....	17,0	31,9	46,4	2,1	16,8	31,6	16. 19. 46,9		16. 19. 1,81	B.
	Σ 2087. sf.....	30,3	45,2	59,9	15,2	29,5	44,1	16. 35. 59,0		16. 35. 14,74	B.
	(o) 56 Herculis.....	7,1	22,1	36,9	52,0	7,1	21,8	16. 48. 36,9		16. 47. 51,98	B.
	Saturn 1 L.....	4,69	.....	15,3	.....	44,1	.....	18. 55. 14,0	+ 0,02	18. 54. 30,09	B.
	Saturn 2 L.....	.....	4,5	.....	33,7	.....	2,9	18. 55.	- 0,03	18. 54. 33,67	B.
	(p) Aldebaran.....	24,9	39,0	52,4	6,6	20,4	34,3	4. 26. 49,1		4. 26. 6,67	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Cloudy and very faint.
 (e) Faint and unsteady.
 (i) Great motion.
 (n) A large blur.

(b) Cloudy.
 (f) Very unsteady.
 (k) Hazy.
 (o) Hazy and faint.

(c) Excessively faint, little better than guess.
 (g) Very faint.
 (l) Exceedingly faint.
 (p) Much unsteadiness.

(d) Flaming.
 (h) Blazing, not good.
 (m) Blazing.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.					
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.						
- 0,60	- 5,03	+ 2,19	59,54			0,70	43,82	13. 12. 43,74	- 2,94	Σ 1734.					
			24,91					14. 7. 9,14	- 3,14	Σ 1817.					
			36,48					14. 14. 20,71	- 3,28	Piazzi XIV. 62.					
			30,87					14. 16. 15,11	- 3,32	Piazzi XIV. 70.					
			24,28	8,47	44,19	0,63	44,50	14. 38. 8,53	- 3,22	ε Bootis.					
			27,39					15. 25. 11,66	- 3,40	Σ 1953.					
			48,58	32,80	44,22			15. 36. 32,85	- 3,41	α Serpentis.					
			23,58	7,99	44,41			16. 6. 7,87	- 3,58	δ Ophiuchi.					
			8,05	52,75	44,70			4. 26. 52,67	- 1,10	Aldebaran.					
			32,75					5. 0. 17,38		☉'s center.					
			47,60	32,20	44,60			7. 24. 32,29	- 1,55	Castor.					
			18,31	2,93	44,62			7. 31. 3,01	- 1,22	Procyon.					
			55,04	39,92	44,88			7. 35. 39,74	- 1,53	Pollux.					
			11,40					14. 6. 56,27	- 3,14	Σ 1816.					
			35,93					14. 14. 20,80	- 3,28	Piazzi XIV. 62.					
			54,89					14. 33. 39,77	- 3,21	ζ Bootis.					
			23,44	8,46	45,02			14. 38. 8,32	- 3,21	ε Bootis.					
			41,34					14. 41. 26,23	- 3,22	Σ 1884.					
			27,40					15. 25. 12,30	- 3,40	Σ 1953.					
			48,08	32,81	44,73			15. 36. 32,99	- 3,42	α Serpentis.					
			15,71					16. 36. 0,64	- 3,34	Σ 2087. sf.					
			52,59					16. 48. 37,53	- 3,33	56 Herculis.					
			54,66	39,56	44,90			17. 27. 39,62	- 3,42	α Ophiuchi.					
			5,62					18. 55. 50,62		Saturn's center.					
			40,10			0,55	45,15	5. 4. 25,37		☉'s center.					
			46,68	32,19	45,51			7. 24. 32,00	- 1,54	Castor.					
			17,59	2,93	45,34			7. 31. 2,91	- 1,22	Procyon.					
			54,36	39,91	45,55			7. 35. 39,68	- 1,52	Pollux.					
			23,69					14. 7. 9,16	- 3,13	Σ 1817.					
			35,89					14. 14. 21,37	- 3,27	Piazzi XIV. 62.					
			30,38					14. 20. 15,86	- 3,32	Σ 1847.					
			20,98					14. 34. 6,46	- 3,23	Σ 1866.					
			23,12	8,46	45,34			14. 38. 8,61	- 3,21	ε Bootis.					
			40,81					14. 41. 26,30	- 3,21	Σ 1884.					
			2,43	47,94	45,51			16. 19. 47,95	- 4,11	Antares.					
			15,28					16. 36. 0,81	- 3,35	Σ 2087. sf.					
			51,96					16. 48. 37,49	- 3,33	56 Herculis.					
			54,29	39,57	45,28			17. 27. 39,84	- 3,43	α Ophiuchi.					
			49,10							18. 55. 34,68		Saturn's center.			
			+ 2,96	17,20	2,92			45,72	0,61	45,65	7. 31. 3,04	- 1,21	Procyon.		
		53,99		39,91	45,92	7. 35. 39,83	- 1,52	Pollux.							
		23,44				14. 8. 9,45	- 3,14	Σ 1823.							
		20,23				14. 34. 6,25	- 3,23	Σ 1866.							
		22,30		8,45	46,15			14. 38. 8,32	- 3,20		ε Bootis.				
		40,27						14. 41. 26,29	- 3,21		Σ 1884.				
		57,04						15. 5. 43,07	- 3,27		Σ 1919. sp.				
		46,86		32,82	45,96			15. 36. 32,91	- 3,43		α Serpentis.				
		1,90		47,95	46,05			16. 19. 47,96	- 4,12		Antares.				
		14,47						16. 36. 0,54	- 3,35		Σ 2087. sf.				
		51,69						16. 48. 37,77	- 3,34		56 Herculis.				
		31,95						18. 55. 18,08			Saturn's center.				
		6,47		52,80	46,33	0,75	46,25	4. 26. 52,86	- 1,15		Aldebaran.				

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
June 10	(a) ☉ 1 L.	2,9	17,1	31,9	47,0	1,2	15,8	5. 11. 30,3		5. 10. 46,60	B.
	☉ 2 L.	20,4	35,0	49,7	4,5	19,1	33,5	5. 13. 48,1		5. 13. 4,33	B.
	(a) Procyon.....	35,7	50,2	3,2	16,7	31,0	43,9	7. 30. 57,2		7. 30. 16,85	B.
	(a) Pollux.....	7,5	23,0	38,1	53,2	8,9	24,1	7. 35. 39,3		7. 34. 53,44	B.
	Σ 1817.....	37,1	52,0	7,2	22,7	38,0	52,9	14. 7. 8,1		14. 6. 22,57	B.
	(b) Piazzì XIV. 70...	.....	.....	15,1	28,3	42,2	56,1	14. 16. 9,9	- 13,70	14. 15. 28,62	B.
	(c) Σ 1866.....	38,3	52,1	6,0	20,0	33,3	47,1	14. 34. 0,9		14. 33. 19,67	B.
	ε Bootis.....	36,4	51,9	6,5	22,1	37,1	52,2	14. 38. 7,7		14. 37. 21,98	B.
	Σ 1883.....	39,5	53,1	6,3	20,1	33,3	47,0	14. 41. 0,7		14. 40. 20,00	B.
	Σ 1919. <i>sp.</i>	13,6	28,0	42,1	56,7	11,0	25,1	15. 5. 39,3		15. 4. 56,54	B.
	α Serpentis.....	5,7	19,3	32,4	46,1	0,1	13,7	15. 36. 27,2		15. 35. 46,36	B.
	(d) Antares.....	16,1	31,0	45,4	1,3	16,2	31,1	16. 19. 46,1		16. 19. 1,03	B.
	(c) Aldebaran.....	23,9	38,0	51,7	6,1	19,9	33,7	4. 26. 48,1		4. 26. 5,91	B.
June 11	(a) ☉ 1 L.	10,1	25,0	39,6	54,2	9,1	23,9	5. 15. 38,2		5. 14. 54,30	B.
	☉ 2 L.	28,2	42,9	57,4	12,6	27,1	41,6	5. 17. 56,2		5. 17. 12,28	B.
	Procyon.....	34,9	49,2	2,3	15,9	29,3	42,8	7. 30. 56,2		7. 30. 15,80	B.
	Pollux.....	6,6	22,2	37,1	52,8	8,1	23,3	7. 35. 38,7		7. 34. 52,68	B.
	☉ 1 L.	50,8	5,7	20,2	35,2	50,0	5,0	7. 48. 19,7		7. 47. 35,23	B.
	(a) Polaris SP. ....	.....	44.41,7	52.57,6	1.21,2	9.51,5	18. 9,8	13. 26. 36,4	- 4. 12,10	13. 1. 24,27	B.
	(e) Σ 1816.....	.....	.....	53,3	8,8	24,7	40,0	14. 6. 55,2	- 15,51	14. 6. 8,89	B.
	Piazzì XIV. 70. .	46,3	0,3	13,8	27,7	41,4	55,1	14. 16. 9,1		14. 15. 27,67	B.
	Σ 1867.....	30,1	46,0	1,7	17,9	33,8	49,1	14. 34. 5,4		14. 33. 17,72	B.
	ε Bootis.....	35,4	50,9	6,2	21,0	36,2	51,4	14. 38. 6,9		14. 37. 21,14	B.
	Σ 1883.....	38,3	52,1	5,4	19,2	33,1	46,1	14. 40. 59,6		14. 40. 19,12	B.
	α Serpentis.....	5,1	18,4	31,9	45,5	59,1	13,1	15. 36. 26,0		15. 35. 45,59	B.
June 13	☉ 1 L.	26,1	41,0	55,4	10,3	25,0	39,8	5. 23. 54,3		5. 23. 10,27	B.
	☉ 2 L.	44,1	59,2	13,8	28,5	43,3	57,9	5. 26. 12,4		5. 25. 28,46	B.
	(f) ☉ 1 L.	32,0	46,0	59,7	14,0	28,1	42,0	9. 44. 56,0		9. 44. 13,97	B.
	(f) Regulus.....	29,0	43,0	56,1	10,2	24,1	37,7	9. 59. 51,6		9. 59. 10,24	B.
	(d) Polaris SP.	36.14,4	.....	52.58,7	1.23,2	9.51,5	18. 8,4	13. 26. 34,3	- 2. 47,68	13. 1. 24,07	B.
	(d) Σ 1816.....	20,7	36,2	51,5	7,2	23,0	38,3	14. 6. 54,0		14. 6. 7,27	B.
	(d) Σ 1850. <i>uf.</i>	4,1	19,3	34,7	50,1	5,9	21,1	14. 21. 36,3		14. 20. 50,21	B.
	(d) ε Bootis.....	33,9	49,0	3,9	19,5	34,9	49,8	14. 38. 5,1		14. 37. 19,45	B.
	(d) Σ 1883.....	36,6	50,2	4,0	17,4	30,9	44,1	14. 40. 58,1		14. 40. 17,33	B.
	(d) Σ 1921. <i>sf.</i>	22,0	39,1	56,5	14,2	31,4	48,9	15. 6. 6,1		15. 5. 14,03	B.
	α Serpentis.....	3,1	16,7	30,2	43,9	57,3	11,1	15. 36. 24,8		15. 35. 43,87	B.
	Antares.....	13,8	29,1	43,1	58,9	14,1	28,5	16. 19. 43,3		16. 18. 58,69	B.
	(d) α Ophiuchi.....	9,0	23,2	36,9	51,1	4,4	18,2	17. 27. 32,1		17. 26. 50,70	B.
	Saturn 1 L.....	36,4	.....	5,2	.....	35,2	.....	18. 54. 3,7	+ 0,02	18. 53. 20,14	B.
	Saturn 2 L.....	.....	54,3	.....	23,3	.....	52,6	18. 53.	- 0,03	18. 53. 23,37	B.
	(g) Polaris.....	.....	45.11,8	53.26,2	1.59,5	10.20,7	18.41,5	1. 27. 7,6	- 4. 11,89	1. 1. 55,99	B.
June 14	☉ 1 L.	33,9	48,6	3,3	18,2	33,0	47,9	5. 28. 3,0		5. 27. 18,27	B.
	☉ 2 L.	52,4	7,3	22,0	36,9	51,6	6,2	5. 30. 20,7		5. 29. 36,73	B.
	Regulus.....	.....	.....	55,6	9,6	23,2	37,0	9. 59. 50,9	- 13,80	9. 59. 9,46	B.
	(h) ☉ 1 L.	47,0	0,9	14,3	28,2	42,1	56,0	10. 39. 9,6		10. 38. 28,30	B.
	(d) β Leonis.....	30,4	44,7	58,2	12,5	26,5	40,1	11. 40.	+ 6,99	11. 40. 12,39	B.
	Polaris SP.	36.12,4	44.42,8	52.57,5	1.22,7	9.52,7	18. 9,6	13. 26. 36,3		13. 1. 24,86	B.
	Σ 1850. <i>uf.</i>	3,2	18,9	34,0	49,6	4,9	20,1	14. 21. 35,7		14. 20. 49,49	B.
	Σ 1867.....	27,6	43,3	59,3	15,6	31,2	47,1	14. 34. 3,2		14. 33. 15,33	B.
	ε Bootis.....	33,0	48,1	3,3	18,9	33,9	49,2	14. 38. 4,4		14. 37. 18,69	B.
	(i) Σ 1935.....	0,3	16,1	31,3	47,7	3,1	19,2	15. 13. 34,9		15. 12. 47,52	B.
	(k) Σ 1963.....	.....	11,0	26,4	42,1	57,8	13,3	15. 31. 28,9	- 7,82	15. 30. 42,10	B.
	α Serpentis.....	2,4	16,2	29,3	42,8	56,7	10,1	15. 36. 24,0		15. 35. 43,07	B.
June 15	(l) ☉ 1 L.	43,0	58,0	12,3	27,2	42,0	56,4	5. 32. 11,2		5. 31. 27,16	B.
	☉ 2 L.	1,1	16,0	30,2	.....	.....	.....	5. 33.	+ 29,43	5. 33. 45,20	B.
	Regulus.....	27,3	41,2	54,9	8,7	22,7	36,2	9. 59. 49,9		9. 59. 8,70	B.
	☉ 1 L.	37,6	51,3	5,0	19,1	32,6	46,9	11. 32. 0,7		11. 31. 19,03	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, *GFEDCBA*.

(a) Much unsteadiness. (b) Hazy and faint. (c) Very hazy. (d) Cloudy. (e) Very faint. Wire IV was written down 9,8 and is altered conjecturally. (f) Haze and unsteadiness. (g) Cloudy and unsteady. (h) Faint from clouds. (i) The noted time has been increased 1^m. (k) Most probably the following star. See June 22. (l) Cloudy and unsteady. Disturbed at the second limb.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,03	+ 2,96	55,22			0,75	46,25	5 . 12 . 41,63		☉'s center.
			16,73	2,92	46,19			7 . 31 . 3,21	- 1,21	Procyon.
			53,13	39,91	46,78			7 . 35 . 39,62	- 1,52	Pollux.
			22,27					14 . 7 . 8,96	- 3,11	Σ 1817.
			28,60					14 . 16 . 15,30	- 3,31	Piazzi XIV. 70.
			19,52					14 . 34 . 6,22	- 3,23	Σ 1866.
			21,67	8,45	46,78			14 . 38 . 8,38	- 3,20	ε Bootis.
			19,86					14 . 41 . 6,57	- 3,27	Σ 1883.
			56,31					15 . 5 . 43,03	- 3,27	Σ 1919. <i>sp.</i>
			46,22	32,82	46,60			15 . 36 . 32,96	- 3,43	α Serpentis.
			1,12	47,96	46,84			16 . 19 . 47,88	- 4,13	Antares.
			5,71	52,81	47,10	0,82	47,03	4 . 26 . 52,89	- 1,16	Aldebaran.
			3,04					5 . 16 . 50,25		☉'s center.
			15,68	2,92	47,24			7 . 31 . 2,97	- 1,21	Procyon.
			52,37	39,91	47,54			7 . 35 . 39,66	- 1,52	Pollux.
			35,00					7 . 48 . 22,30		☉ 1 L.
			40,38	27,72	47,34			1 . 2 . 27,85	+ 15,79	Polaris SP.
			8,57					14 . 6 . 56,08	- 3,11	Σ 1816.
			27,65					14 . 16 . 15,17	- 3,31	Piazzi XIV. 70.
			17,38					14 . 34 . 4,91	- 3,18	Σ 1867.
			20,83	8,44	47,61			14 . 38 . 8,36	- 3,19	ε Bootis.
			18,98					14 . 41 . 6,51	- 3,27	Σ 1883.
			45,45	32,82	47,37			15 . 36 . 33,01	- 3,43	α Serpentis.
	- 4,83		19,14			0,85	48,60	5 . 25 . 7,93		☉'s center.
			13,83					9 . 45 . 2,77		☉ 1 L.
			10,07	59,04	48,97			9 . 59 . 59,02	- 1,93	Regulus.
			39,79	29,11	49,32			1 . 2 . 28,85	+ 14,40	Polaris SP.
			6,97					14 . 6 . 56,07	- 3,09	Σ 1816.
			49,81					14 . 21 . 38,92	- 3,13	Σ 1850. <i>nf.</i>
			19,16	8,43	49,27			14 . 38 . 8,28	- 3,18	ε Bootis.
			17,20					14 . 41 . 6,32	- 3,33	Σ 1883.
			13,64					15 . 6 . 2,77	- 3,24	Σ 1921. <i>sf.</i>
			43,74	32,82	49,08			15 . 36 . 32,89	- 3,43	α Serpentis.
			58,79	47,98	49,19			16 . 19 . 47,97	- 4,15	Antares.
			50,53	39,63	49,10			17 . 27 . 39,75	- 3,49	α Ophiuchi.
			21,83					18 . 54 . 11,10		Saturn's center.
			40,19	29,46	49,27	0,78	49,50	1 . 2 . 29,72	+ 14,05	Polaris.
			27,27					5 . 29 . 16,95		☉'s center.
			9,29	59,03	49,74			9 . 59 . 59,11	- 1,92	Regulus.
			28,20					10 . 39 . 18,04		☉ 1 L.
			12,20	2,23	50,03			11 . 41 . 2,08	- 2,43	β Leonis.
			40,58	29,81	49,23			1 . 2 . 30,50	+ 13,70	Polaris SP.
			49,19					14 . 21 . 39,15	- 3,12	Σ 1850. <i>nf.</i>
			15,01					14 . 34 . 4,98	- 3,16	Σ 1867.
			18,40	8,42	50,02			14 . 38 . 8,37	- 3,17	ε Bootis.
			47,20					15 . 13 . 37,19	- 3,24	Σ 1935.
			41,78					15 . 31 . 31,78	- 3,27	Σ 1963.
			42,94	32,82	49,88			15 . 36 . 32,95	- 3,43	α Serpentis.
			35,95			0,66	50,15	5 . 33 . 26,25		☉'s center.
			8,53	59,02	50,49			9 . 59 . 58,95	- 1,91	Regulus.
			18,97					11 . 32 . 9,44		☉ 1 L.

 June 14. 4^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
June 15	β Virginis.....	59,9	13,1	26,3	39,9	53,9	6,6	11.42.20,3		11.41.40,00	B.
	η Virginis.....	21,1	35,0	48,2	1,7	15,2	28,7	12.11.42,0		12.11.1,70	B.
	(a) Antares.....	12,2	27,3	42,2	57,3	12,7	27,0	16.19.42,3		16.18.57,29	B.
	α Herculis.....	58,1	11,9	25,4	40,1	54,1	7,7	17.7.21,4		17.6.39,81	B.
	α Ophiuchi.....	7,9	21,9	35,2	49,1	3,2	16,9	17.27.30,5		17.26.49,25	B.
	(b) Saturn 1 L.....	.....	.....	28,9	.....	59,0	.....	18.53.27,9	- 14,52	18.52.44,08	B.
	Saturn 2 L.....	.....	18,1	.....	47,5	.....	.....	18.52.	+ 14,50	18.52.47,30	B.
	(b) Jupiter 1 L.....	2,8	.....	.....	46,2	.....	15,2	19.29.	+ 4,83	19.28.46,23	B.
	Jupiter 2 L.....	.....	20,9	.....	.....	4,6	.....	19.29.	+ 7,19	19.28.49,94	B.
June 16	(c) δ 1 L.....	18,0	31,8	45,3	59,9	14,0	27,7	12.24.41,9		12.23.59,80	B.
	(b) Spica.....	.....	37,1	50,3	4,7	18,2	31,5	13.16.45,2	- 6,84	13.16.4,33	B.
	Σ 1867.....	26,2	42,2	57,7	14,1	30,0	45,9	14.34.1,7		14.33.13,97	B.
	ϵ Bootis.....	31,9	47,2	2,2	17,3	33,1	47,8	14.38.3,2		14.37.17,53	B.
	(c) Jupiter 1 L.....	34,2	.....	4,2	.....	32,9	.....	19.29.3,0	+ 0,02	19.28.18,59	B.
	Jupiter 2 L.....	.....	54,2	.....	22,8	.....	51,9	19.28.	- 0,03	19.28.22,94	B.
June 18	(d) Saturn 1 L.....	3,9	.....	33,9	.....	2,8	.....	18.52.32,0	+ 0,02	18.51.48,17	B.
	Saturn 2 L.....	.....	22,7	.....	52,2	.....	21,0	18.52.	- 0,03	18.51.51,94	B.
	(b) Jupiter 1 L.....	39,9	.....	8,9	.....	38,0	.....	19.28.7,1	+ 0,02	19.27.23,49	B.
	Jupiter 2 L.....	.....	58,3	.....	27,2	.....	56,4	19.27.	- 0,03	19.27.27,27	B.
	(b) α Aquilæ.....	33,7	47,9	0,1	14,9	28,4	42,1	19.42.55,7		19.42.14,69	B.
	(b) β Aquilæ.....	3,1	16,5	29,8	43,4	56,9	10,7	19.47.24,2		19.46.43,51	B.
June 20	(c) δ Ophiuchi.....	32,7	46,2	59,8	13,5	26,9	40,3	16.5.53,8		16.5.13,31	B.
	(c) δ 1 L.....	8,9	24,1	39,4	55,1	10,4	25,9	16.10.41,3		16.9.55,01	B.
	(a) Antares.....	7,9	23,1	37,8	53,1	8,0	23,0	16.19.37,9		16.18.52,97	B.
	(f) α Ophiuchi.....	3,7	17,7	31,1	45,2	59,1	12,7	17.27.26,4		17.26.45,13	B.
	Saturn 1 L.....	27,0	.....	56,0	.....	25,1	.....	18.51.54,1	+ 0,02	18.51.10,57	B.
	Saturn 2 L.....	.....	44,9	.....	14,1	.....	43,0	18.51.	- 0,03	18.51.13,97	B.
	(b) Jupiter 1 L.....	42,0	.....	11,1	.....	40,8	.....	19.27.9,3	+ 0,02	19.26.25,82	B.
	Jupiter 2 L.....	.....	0,8	.....	30,0	.....	58,7	19.26.	- 0,03	19.26.29,80	B.
June 21	η Ophiuchi.....	45,4	59,7	13,2	27,5	41,3	55,7	17.1.9,9		17.0.27,53	B.
	δ 1 L.....	56,8	12,2	27,9	43,2	58,9	14,3	17.10.30,0		17.9.43,33	B.
	α Ophiuchi.....	3,4	17,2	30,7	44,6	58,1	12,2	17.27.26,1		17.26.44,61	B.
	Saturn 1 L.....	.....	.....	37,1	.....	5,9	.....	18.51.55,1	- 14,53	18.50.51,50	B.
	Saturn 2 L.....	.....	25,9	.....	54,8	.....	23,7	18.51.	- 0,03	18.50.54,77	B.
	Jupiter 1 L.....	13,0	.....	41,8	.....	11,1	.....	19.26.39,7	+ 0,02	19.25.56,42	B.
	Jupiter 2 L.....	.....	31,2	.....	0,5	.....	29,3	19.26.	- 0,03	19.26.0,30	B.
	α Aquilæ.....	31,3	45,1	58,4	12,3	25,9	39,3	19.42.53,1		19.42.12,20	B.
	β Aquilæ.....	0,2	13,8	27,2	41,1	54,4	7,9	19.47.21,4		19.46.40,85	B.
June 22	(b) \odot 1 L.....	43,2	57,9	12,9	27,6	42,0	56,3	6.1.11,8		6.0.27,39	B.
	\odot 2 L.....	1,5	16,0	31,0	45,3	0,2	15,0	6.3.29,9		6.2.45,56	B.
	(b) Procyon.....	25,9	39,5	53,2	7,1	20,2	33,8	7.30.47,1		7.30.6,69	B.
	ϵ Bootis.....	26,4	41,6	56,8	12,1	27,1	42,1	14.37.57,3		14.37.11,91	B.
	Σ 1921. sf.....	14,7	32,0	49,0	6,8	24,1	41,4	15.5.59,0		15.5.6,72	B.
	(g) Σ 1952.....	44,8	58,3	12,0	25,9	39,6	53,1	15.24.6,9		15.23.25,80	B.
	Σ 1963. np.....	48,1	4,0	19,1	35,0	51,0	6,1	15.31.22,0		15.30.35,04	B.
	α Serpentis.....	56,1	8,8	22,6	36,3	50,2	3,9	15.36.17,2		15.35.36,44	B.
	(h) Rigel.....	19,6	33,4	47,0	.....	14,3	27,9	5.6.	+ 8,17	5.6.0,61	B.
June 23	(i) \odot 1 L.....	52,3	6,9	21,4	36,2	51,1	5,5	6.5.20,2		6.4.36,23	B.
	\odot 2 L.....	10,0	24,6	39,1	54,0	9,0	23,3	6.7.38,0		6.6.54,00	B.
June 24	δ Ursæ Minoris...	11.12,2	15.0,3	18.42,6	22.33,5	26.20,8	30.4,7	18.33.52,3		18.22.32,34	B.
	(b) Saturn 1 L.....	9,8	.....	.....	53,2	.....	22,4	18.50.	+ 4,84	18.49.53,31	B.
June 25	Saturn 2 L.....	.....	28,1	.....	.....	11,2	.....	18.50.40,3	- 9,75	18.49.56,78	B.
June 25	(b) α Herculis.....	49,1	3,3	17,1	31,1	45,0	58,9	17.7.13,1		17.6.31,08	B.
	(b) α Ophiuchi.....	58,9	12,6	26,5	40,2	54,1	8,1	17.27.22,1		17.26.40,35	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

- (a) Blazing. (b) Cloudy. (c) Unsteady. (g) Very faint.
 (d) Doubtful on account of clouds. (h) Very cloudy and unsteady. Grouped with the pre-
 (e) Cloudy and faint. (f) Very cloudy. Discordant preceding clock-stars.
 clock-error by this star, as also on June 21. (i) Cloudy and unsteady.

Error of Collima- tion.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock ap- parently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.					
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.						
- 0,60	- 4,83	+ 2,96	39,90			0,66	50,15	11 . 42 . 30,37	- 2,41	β Virginis.					
			1,62					12 . 11 . 52,10	- 2,53	η Virginis.					
			57,39	48,00	50,61			16 . 19 . 47,99	- 4,17	Antares.					
			39,62	30,21	50,59			17 . 7 . 30,24	- 3,48	α Herculis.					
			49,08	39,65	50,57			17 . 27 . 39,71	- 3,51	α Ophiuchi.					
			45,76					18 . 53 . 36,43		Saturn's center.					
			48,16					19 . 29 . 38,84		Jupiter's center.					
			59,77					12 . 24 . 50,99		γ 1 L.					
			4,31	55,68	51,37			14 . 34 . 4,94	- 3,14	Spica.					
			13,65					19 . 29 . 12,30		Σ 1867.					
			17,24	8,41	51,17					ϵ Bootis.					
			20,84							Jupiter's center.					
	- 5,48				50,12			0,88	52,62	18 . 52 . 43,43		Saturn's center.			
					25,44					19 . 28 . 18,77		Jupiter's center.			
					14,52	7,93	53,41					α Aquilæ.			
					43,35	36,61	53,26					β Aquilæ.			
		13,10			8,06	54,96	0,79			54,36	16 . 6 . 7,99	- 3,65	δ Ophiuchi.		
		55,08									16 . 10 . 49,97		γ 1 L.		
		53,04			48,03	54,99					16 . 19 . 47,94	- 4,20	Antares.		
		44,92			39,69	54,77					17 . 27 . 39,85	- 3,55	α Ophiuchi.		
		12,31									18 . 52 . 7,29		Saturn's center.		
		27,85									19 . 27 . 22,85		Jupiter's center.		
		27,53									0,89	55,05	17 . 1 . 23,21	- 4,04	η Ophiuchi.
		43,40											17 . 10 . 39,08		γ 1 L.
		44,40	39,70	55,30	17 . 27 . 40,10	- 3,56		α Ophiuchi.							
		53,18			18 . 51 . 48,93			Saturn's center.							
		58,40			19 . 26 . 54,17			Jupiter's center.							
		12,02	7,99	55,97	19 . 43 . 7,80	- 3,51		α Aquilæ.							
		40,68	36,67	55,99	19 . 47 . 36,46	- 3,52	β Aquilæ.								
		36,19			1,07	56,01	6 . 2 . 32,47		\odot 's center.						
		6,53	2,95	56,42			7 . 31 . 2,87	- 1,24	Procyon.						
		11,56	8,36	56,80			14 . 38 . 8,22	- 3,11	ϵ Bootis.						
		6,28					15 . 6 . 2,96	- 3,16	Σ 1921. <i>sf</i> .						
		25,61					15 . 24 . 22,31	- 3,36	Σ 1952.						
		34,68					15 . 31 . 31,38	- 3,24	Σ 1963. <i>np</i> .						
		36,27	32,81	56,54			15 . 36 . 32,98	- 3,42	α Serpentis.						
		0,55	57,84	57,29			5 . 6 . 57,86	- 0,95	Rigel.						
		44,83					6 . 6 . 42,18		\odot 's center.						
		24,81	23,88	59,07			0,95	57,87			δ Ursæ Minoris.				
		55,09							18 . 50 . 53,70		Saturn's center.				
		30,85	30,27	59,42							α Herculis.				
				40,14	39,72	59,58		58,82				α Ophiuchi.			

June 22. 4^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
June 26	β Aquarii.....	37,0	50,6	3,8	17,5	31,1	44,4	21.22.58,1		21.22.17,50	G.
	α Aquarii.....	2,7	16,2	29,5	43,0	56,7	10,0	21.57.23,4		21.56.43,07	G.
	(a) Rigel.....	16,1	29,7	43,1	57,1	10,8	24,2	5.6.37,9		5.5.56,99	B.
June 27	(b) Regulus.....	16,6	30,6	44,1	58,0	12,0	25,9	10.0.	+ 6,90	9.59.58,10	B.
	(b) Polaris SP.....	37.12,4	45.37,5	...	...	10.51,7	19.8,2	13.27.33,5	- 1.41,43	13.2.23,23	B.
	ζ Bootis.....	56,9	10,8	24,2	38,3	52,3	6,1	14.34.20,0		14.33.38,38	B.
	ϵ Bootis.....	21,6	37,0	52,1	7,5	22,6	37,9	14.38.53,1		14.38.7,40	B.
	α Coronæ Borealis.	16,9	32,0	46,9	2,4	17,3	32,4	15.28.47,6		15.28.2,21	B.
	ζ Coronæ Bor. sf..	37,4	54,1	11,1	28,0	45,1	2,0	15.34.18,7		15.33.28,06	B.
	(c) Σ 1977.....	9,9	25,0	40,0	55,0	10,0	24,9	15.43.39,7		15.42.54,93	B.
	(d) Antares.....	1,8	16,7	31,3	46,5	1,7	16,4	16.20.31,3		16.19.46,53	B.
	ζ Herculis.....	35,2	50,9	6,1	22,1	38,0	54,0	16.36.10,3		16.35.22,37	B.
	(a) δ Ursæ Minoris...	12.10,6	15.56,8	19.43,6	23.31,8	27.18,4	31.3,7	18.34.50,2		18.23.30,73	B.
	Saturn 1 L.....	10,4	...	38,7	...	8,9	...	18.50.38,0	+ 0,02	18.49.54,02	B.
	Saturn 2 L.....	...	28,9	...	58,0	...	26,7	18.50.	- 0,03	18.49.57,84	B.
	Jupiter 1 L.....	7,3	...	36,3	...	5,9	...	19.24.34,9	+ 0,02	19.23.51,12	B.
	Jupiter 2 L.....	...	26,1	...	55,3	...	24,1	19.24.	- 0,03	19.23.55,14	B.
	(e) Rigel.....	15,2	28,8	42,1	55,8	9,8	23,2	5.7.36,6		5.6.55,93	B.
June 28	(a) α Hydræ.....	8,1	21,7	35,1	48,9	2,4	15,9	9.20.29,3		9.19.48,77	B.
	5 Serpentis.....	36,0	49,4	2,8	16,4	30,1	43,3	15.11.57,0		15.11.16,43	B.
	α Coronæ Borealis.	15,9	31,2	46,1	1,2	16,4	31,2	15.28.46,6		15.28.1,23	B.
	ζ Coronæ Bor. sf..	36,2	53,1	9,9	27,1	43,8	1,1	15.34.17,9		15.33.27,02	B.
	α Serpentis.....	50,1	3,7	17,2	31,2	44,3	58,1	15.37.11,7		15.36.30,90	B.
	(b) Σ 1977.....	9,0	...	...	...	9,0	24,1	15.43.39,1	- 11,24	15.42.54,06	B.
	α Herculis.....	46,2	0,4	14,1	28,2	42,1	56,0	17.8.10,0		17.7.28,15	B.
	(f) α Ophiuchi.....	56,2	10,0	23,7	37,3	51,2	5,1	17.28.19,1		17.27.37,52	B.
	δ Ursæ Minoris...	12.9,3	15.56,3	19.39,7	23.29,4	27.15,5	31.0,6	18.34.48,4		18.23.28,46	B.
	Saturn 1 L.....	50,8	...	19,9	...	49,0	...	18.50.18,3	+ 0,02	18.49.34,52	B.
	Saturn 2 L.....	...	8,9	...	37,6	...	6,7	18.50.	- 0,03	18.49.37,70	B.
	Jupiter 1 L.....	35,3	...	4,6	...	34,0	...	19.24.3,1	+ 0,02	19.23.19,27	B.
	Jupiter 2 L.....	...	54,0	...	22,9	...	51,8	19.23.	- 0,03	19.23.22,87	B.
	(e) Aldebaran.....	8,6	22,5	36,3	50,6	4,9	18,4	4.27.32,8		4.26.50,58	B.
	(e) Rigel.....	14,3	28,2	41,3	54,9	9,0	22,0	5.7.35,9		5.6.55,09	B.
June 29	ζ Bootis.....	54,5	8,7	22,3	36,3	50,3	4,1	14.34.18,0		14.33.36,32	B.
	ϵ Bootis.....	19,7	34,9	49,7	5,3	20,5	35,4	14.38.50,8		14.38.5,19	B.
	Σ 1919.....	57,1	11,3	25,6	40,0	54,1	8,6	15.6.23,0		15.5.39,95	B.
	5 Serpentis.....	35,1	48,4	1,8	15,2	29,1	42,2	15.11.55,9		15.11.15,39	B.
	α Coronæ Borealis.	14,9	30,2	45,1	0,3	15,4	30,3	15.28.45,6		15.28.0,25	B.
	ζ Coronæ Bor. sf..	35,2	52,2	9,0	26,0	43,0	59,8	15.34.17,0		15.33.26,03	B.
	α Serpentis.....	48,9	2,4	16,1	30,0	43,3	57,1	15.37.10,4		15.36.29,74	B.
	Σ 1973.....	40,1	57,1	13,7	30,9	48,0	4,2	15.41.21,3		15.40.30,75	B.
	Piazzi XV. 220...	41,1	54,4	8,0	21,6	35,1	48,4	15.50.2,1		15.49.21,53	B.
	Σ 2007. sf.....	0,1	14,0	27,7	42,0	55,9	10,1	15.59.23,3		15.58.41,87	B.
	Σ 2011.....	...	...	1,1	17,0	32,1	47,9	16.2.3,1	- 15,44	16.1.16,80	B.
	Σ 2017.....	10,6	24,3	38,0	52,1	6,3	20,1	16.5.34,0		16.4.52,20	B.
	(d) Antares.....	59,7	14,7	29,3	44,8	0,4	15,3	16.20.29,5		16.19.44,81	B.
	ζ Herculis.....	32,8	48,3	4,0	20,1	36,1	52,2	16.36.8,1		16.35.20,22	B.
	(d) α Ophiuchi.....	55,3	9,3	22,8	37,1	51,1	4,3	17.28.18,0		17.27.36,84	B.
	δ Ursæ Minoris...	12.7,8	15.55,7	19.38,3	23.30,5	27.17,2	31.0,6	18.34.48,2		18.23.28,33	B.
July 1	Saturn 1 L.....	31,0	...	0,1	...	29,2	...	18.49.58,2	+ 0,02	18.49.14,64	B.
	Saturn 2 L.....	...	49,1	...	18,3	...	47,4	18.49.	- 0,03	18.49.18,24	B.
	Jupiter 1 L.....	3,0	...	32,0	...	1,3	...	19.23.30,2	+ 0,02	19.22.46,64	B.
	Jupiter 2 L.....	...	21,5	...	51,1	...	20,0	19.23.	- 0,03	19.22.50,84	B.
	(g) δ 2 L.....	3,7	18,2	32,1	46,3	0,8	15,1	1.24.28,9		1.23.46,44	B.
	β Arietis.....	9,2	23,4	37,9	52,3	7,0	21,0	1.46.35,2		1.45.52,28	B.
	α Arietis.....	29,7	44,2	58,7	13,5	28,1	42,5	1.58.57,2		1.58.13,41	B.
	(e) α Ceti.....	17,2	30,8	44,1	57,9	11,4	24,8	2.54.38,4		2.53.57,80	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Very unsteady.
(c) Very faint.
(d) Flaming.

(b) Cloudy.

(e) Cloudy and unsteady.
(f) Flaring.
(g) Very uneven.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
July 2	(a) Antares.....	57,3	12,1	27,0	41,8	56,9	12,0	16. 20. 26,6		16. 19. 41,95	B.
	α Herculis.....	43,0	56,4	10,2	24,1	38,1	51,9	17. 8. 6,1		17. 7. 24,26	B.
	α Ophiuchi.....	52,6	6,1	20,1	33,7	47,6	1,4	17. 28. 15,1		17. 27. 33,80	B.
	Saturn 1 L.....	30,4	....	59,9	....	29,1	....	18. 48. 59,8	+ 0,02	18. 48. 14,82	B.
	Saturn 2 L.....	....	49,2	....	18,4	....	47,5	18. 48.	- 0,03	18. 48. 18,34	B.
	Jupiter 1 L.....	24,1	....	53,5	....	22,9	....	19. 21. 51,8	+ 0,02	19. 21. 8,09	B.
	Jupiter 2 L.....	....	43,1	....	12,2	....	41,2	19. 21.	- 0,03	19. 21. 12,14	B.
July 4	(b) α Ophiuchi.....	50,4	4,2	17,9	32,1	45,8	59,3	17. 28. 13,1		17. 27. 31,83	B.
July 5	(c) ☉ 1 L.....	22,7	37,4	51,9	7,0	21,4	36,0	6. 55. 50,7		6. 55. 6,73	B.
	☉ 2 L.....	40,2	54,9	9,5	24,3	39,1	53,5	6. 58. 8,8		6. 57. 24,33	B.
	α Hydræ.....	0,8	14,8	28,1	41,9	55,4	9,0	9. 20. 22,7		9. 19. 41,81	B.
	(c) Regulus.....	8,6	22,5	36,1	50,1	4,0	17,7	10. 0. 31,3		9. 59. 50,04	B.
	(d) Σ 2007. sf.....	54,2	8,1	22,0	36,0	49,7	....	15. 58.	+ 13,85	15. 58. 35,85	B.
	(a) Antares.....	53,6	9,0	23,5	38,6	53,4	8,6	16. 20. 23,4		16. 19. 38,59	B.
	ζ Herculis.....	26,3	42,3	58,1	14,0	29,9	45,9	16. 36. 1,9		16. 35. 14,06	B.
	α Herculis.....	39,2	53,4	7,0	21,1	35,0	49,0	17. 8. 3,1		17. 7. 21,11	B.
	α Ophiuchi.....	49,3	3,2	16,9	31,0	44,6	58,3	17. 28. 12,1		17. 27. 30,77	B.
	Saturn 1 L.....	31,0	....	0,1	....	29,3	....	18. 47. 58,9	+ 0,02	18. 47. 14,84	B.
	Saturn 2 L.....	....	49,2	....	18,4	....	47,4	18. 47.	- 0,03	18. 47. 18,30	B.
	Jupiter 1 L.....	44,0	....	13,0	....	42,1	....	19. 20. 11,2	+ 0,02	19. 19. 27,59	B.
	Jupiter 2 L.....	....	2,4	....	31,7	....	0,7	19. 20.	- 0,03	19. 19. 31,57	B.
	(e) ☉ 1 L.....	29,1	44,0	58,2	....	28,0	42,2	6. 59. 56,9	+ 0,01	6. 59. 13,08	B.
July 6	ε Bootis.....	12,9	27,8	42,9	58,3	13,9	28,7	14. 38. 43,8		14. 37. 58,33	B.
	Antares.....	52,8	7,9	22,6	38,2	53,2	7,8	16. 20. 23,1		16. 19. 37,95	B.
	α Herculis.....	38,9	52,9	6,2	20,1	34,0	48,1	17. 8. 2,1		17. 7. 20,32	B.
	(f) α Ophiuchi.....	48,4	2,3	16,1	30,2	43,8	57,3	17. 28. 11,1		17. 27. 29,88	B.
	(g) Saturn 1 L.....	11,4	....	40,1	....	9,8	....	18. 47. 39,0	+ 0,02	18. 46. 55,09	B.
	Saturn 2 L.....	....	29,2	....	58,3	....	27,5	18. 47.	- 0,03	18. 46. 58,30	B.
	(g) Jupiter 1 L.....	10,1	....	39,0	....	8,9	....	19. 19. 37,9	+ 0,02	19. 18. 53,99	B.
	Jupiter 2 L.....	....	28,8	....	58,0	....	27,0	19. 19.	- 0,03	19. 18. 57,90	B.
	(h) Aldebaran.....	59,9	14,2	27,8	42,1	56,0	10,2	4. 27. 24,0		4. 26. 42,03	B.
	Rigel.....	5,6	19,3	33,1	46,7	0,2	13,9	5. 7. 27,3		5. 6. 46,59	B.
July 8	(e) ☉ 1 L.....	40,2	55,0	9,3	24,2	39,0	53,9	7. 8. 8,2		7. 7. 24,26	B.
	☉ 2 L.....	57,8	12,6	26,9	41,7	56,1	10,9	7. 10. 25,3		7. 9. 41,61	B.
July 9	(e) ☉ 1 L.....	45,2	0,1	14,3	28,8	43,7	58,1	7. 12. 13,1		7. 11. 29,05	B.
	☉ 2 L.....	3,0	17,3	31,9	46,4	1,3	15,8	7. 14. 30,1		7. 13. 46,55	B.
July 11	(e) ☉ 1 L.....	54,1	8,7	22,9	38,0	52,3	7,1	7. 20. 21,5		7. 19. 37,80	B.
	☉ 2 L.....	11,1	....	40,0	....	9,2	24,0	7. 22. 38,4	- 5,81	7. 21. 54,73	B.
	(h) Regulus.....	....	16,8	30,2	44,1	58,0	11,7	10. 0. 25,5	- 6,91	9. 59. 44,14	B.
	(i) ☽ 1 L.....	51,0	5,2	19,0	32,8	47,0	0,8	10. 20. 15,0		10. 19. 32,97	B.
	Saturn 1 L.....	32,1	....	1,3	....	30,7	....	18. 45. 59,4	+ 0,02	18. 45. 15,89	B.
	Saturn 2 L.....	....	50,7	....	19,8	....	48,5	18. 45.	- 0,03	18. 45. 19,64	B.
	Rigel.....	1,4	15,2	28,6	42,2	56,1	9,4	5. 7. 23,1		5. 6. 42,28	B.
July 12	(e) ☉ 1 L.....	58,0	12,3	26,4	41,6	56,7	10,3	7. 24. 25,0		7. 23. 41,47	B.
	☉ 2 L.....	14,9	29,1	43,4	58,6	12,9	27,2	7. 26. 42,0		7. 25. 58,30	B.
	(k) Procyon.....	6,7	20,2	33,6	47,2	....	....	7. 30.	+ 20,31	7. 30. 47,23	B.
	(k) ☽ 1 L.....	29,3	43,1	57,0	10,8	24,5	38,3	11. 14. 52,1		11. 14. 10,72	B.
	(k) Polaris SP.....	....	....	53.57,6	2.21,3	10.51,5	19. 8,2	13. 27. 34,8	- 8. 23,49	13. 2. 23,19	B.
	ε Bootis.....	6,4	21,6	36,4	52,1	7,3	22,4	14. 38. 37,5		14. 37. 51,95	B.
	(h) α Coronæ Borealis.	1,5	16,8	32,0	47,1	2,0	17,1	15. 28. 32,3		15. 27. 46,97	B.
	(h) α Serpentis.....	36,1	49,4	3,1	16,6	30,1	44,0	15. 36. 57,2		15. 36. 16,64	B.
	κ Herculis. sp.....	1,9	15,7	29,8	44,3	58,2	12,2	16. 1. 26,0		16. 0. 44,01	B.
	(l) Antares.....	46,6	1,6	16,3	31,7	46,4	1,4	16. 20. 16,2		16. 19. 31,45	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

- (a) Flaming.
 (b) Grouped with the following clock-stars.
 (c) Cloudy, and wind loud.
 (e) Cloudy with much motion.

- (d) Very cloudy.
 (f) Disturbed.

- (g) Hazy and faint.
 (i) Faint from clouds.
 (k) Very cloudy and unsteady.
 (l) Blazing.

- (h) Cloudy.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,91	+ 2,70	42,01	48,05	6,04	1,00	5,58	16 . 19 . 48,27	- 4,22	Antares.
			24,00	30,28	6,28			17 . 7 . 30,29	- 3,55	α Herculis.
			33,57	39,75	6,18			17 . 27 . 39,88	- 3,61	α Ophiuchi.
			16,61					18 . 48 . 22,97		Saturn's center.
								19 . 21 . 16,54		Jupiter's center.
			10,15							
			31,62	39,76	8,14			17 . 27 . 40,03	- 3,62	α Ophiuchi.
			15,23				8,65	6 . 56 . 24,13		\odot 's center.
								9 . 19 . 50,74	- 1,37	α Hydræ.
			41,75	50,78	9,03			9 . 59 . 58,85	- 1,80	Regulus.
			49,83	58,91	9,08			15 . 58 . 44,87	- 3,38	Σ 2007. <i>sf</i> .
			35,63					16 . 19 . 47,93	- 4,21	Antares.
			38,68	48,04	9,36			16 . 35 . 22,93	- 3,25	ζ Herculis.
			13,67					17 . 7 . 30,16	- 3,55	α Herculis.
			20,88	30,28	9,40			17 . 27 . 39,85	- 3,62	α Ophiuchi.
			50,56	39,76	9,20			18 . 47 . 25,97		Saturn's center.
			16,63					19 . 19 . 39,00		Jupiter's center.
			29,64							
	- 5,81	+ 3,12	12,78			0,90	9,52	6 . 59 . 22,56		\odot 1 L.
			57,98	8,21	10,23			14 . 38 . 8,05	- 2,96	ϵ Bootis.
			38,04	48,04	10,00			16 . 19 . 48,17	- 4,21	Antares.
			20,09	30,28	10,19			17 . 7 . 30,25	- 3,55	α Herculis.
			29,67	39,76	10,09			17 . 27 . 39,85	- 3,62	α Ophiuchi.
			56,76					18 . 47 . 6,98		Saturn's center.
			56,00					19 . 19 . 6,24		Jupiter's center.
			41,79	53,42	11,63					Aldebaran.
			46,54	58,13	11,59					Rigel.
			32,64					7 . 8 . 44,35		\odot 's center.
			37,52					7 . 12 . 50,23		\odot 's center.
	- 5,23		46,03			1,12	14,46	7 . 21 . 0,83		\odot 's center.
			43,96	58,89	14,93			10 . 19 . 47,77		Regulus.
			32,83					18 . 45 . 33,18		γ 1 L.
			17,85					5 . 6 . 58,14	- 1,32	Saturn's center.
			42,25	58,21	15,96			7 . 25 . 5,65		Rigel.
			49,65					7 . 31 . 3,10	- 1,38	\odot 's center.
			47,10	3,09	15,99			11 . 14 . 26,81		Procyon.
			10,64					1 . 2 . 56,17	- 9,47	γ 1 L.
			39,93	52,98	13,05			14 . 38 . 7,95	- 2,89	Polaris SP.
			51,64	8,14	16,50			15 . 28 . 3,01	- 3,07	ϵ Bootis.
			46,66	3,06	16,40			15 . 36 . 32,86	- 3,33	α Coronæ Borealis.
			16,50	32,72	16,22			16 . 1 . 0,18	- 3,30	α Serpentis.
			43,80					16 . 19 . 47,94	- 4,19	κ Herculis. <i>sp</i> .
			31,55	48,02	16,47					Antares.

 July 8. 4^h, and July 13. 6^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
July 12	α Herculis	32,3	46,2	0,1	13,9	28,2	41,8	17. 7. 56,2		17. 7. 14,10	B.
	α Ophiuchi.....	42,1	56,0	10,1	23,7	37,4	51,2	17. 28. 5,1		17. 27. 23,66	B.
	δ Ursæ Minoris...	11.52,8	15.40,2	19.23,8	23.12,7	26.56,2	30.44,8	18. 34. 33,2		18. 23. 11,96	B.
	Saturn 1 L.....	12,3	.....	41,8	.....	10,9	.....	18. 45. 39,9	+ 0,02	18. 44. 56,24	B.
	Saturn 2 L.....	.....	30,8	.....	59,9	.....	29,1	18. 45.	- 0,03	18. 44. 59,90	B.
	Jupiter 1 L.....	46,0	.....	14,8	.....	44,2	.....	19. 16. 13,5	+ 0,02	19. 15. 29,64	B.
	Jupiter 2 L.....	.....	5,0	.....	33,9	.....	2,9	19. 16.	- 0,03	19. 15. 33,90	B.
July 13	(a) \odot 1 L.....	1,1	.....	30,1	.....	59,2	13,9	7. 28. 28,3	- 5,80	7. 27. 44,72	B.
	\odot 2 L.....	17,9	32,1	.....	1,3	15,9	.....	7. 30. 44,7	+ 2,88	7. 30. 1,26	B.
	ϵ Bootis.....	5,4	20,7	35,6	51,0	6,3	21,2	14. 38. 36,9		14. 37. 51,01	B.
	α Herculis.....	31,1	45,0	59,0	12,9	27,0	40,9	17. 7. 54,8		17. 7. 12,96	B.
	α Ophiuchi.....	41,1	55,2	8,7	22,9	36,5	50,2	17. 28. 4,1		17. 27. 22,67	B.
	δ Ursæ Minoris...	11.51,8	15.40,7	19.22,8	23.12,6	26.59,2	30.43,5	18. 34. 32,4		18. 23. 11,86	B.
	Saturn 1 L.....	52,9	.....	22,0	.....	51,1	.....	18. 45. 20,1	+ 0,02	18. 44. 36,54	B.
	Saturn 2 L.....	.....	11,1	.....	40,2	.....	9,3	18. 45.	- 0,03	18. 44. 40,17	B.
	Jupiter 1 L.....	12,2	.....	39,9	.....	10,4	.....	19. 15. 39,5	+ 0,02	19. 14. 55,52	B.
	Jupiter 2 L.....	.....	30,7	.....	59,9	.....	29,0	19. 15.	- 0,03	19. 14. 59,84	B.
	(b) Rigel.....	59,4	13,0	26,4	.....	53,9	7,2	5. 7. 20,9	+ 0,01	5. 6. 40,14	B.
	(c) β Tauri.....	16,9	32,1	47,1	2,6	18,1	33,1	5. 16. 48,5		5. 16. 2,63	B.
	(b) \odot 1 L.....	3,4	17,9	32,4	47,1	1,9	16,2	7. 32. 31,0		7. 31. 47,13	B.
	\odot 2 L.....	.....	33,9	49,9	.....	18,3	33,0	7. 34. 47,3	- 8,71	7. 34. 3,77	B.
	(c) ϵ Bootis.....	4,3	19,4	34,7	50,2	5,1	.....	14. 38.	+ 15,22	14. 37. 49,96	B.
July 14	α Herculis.....	30,2	44,1	57,9	12,0	26,1	40,0	17. 7. 53,9		17. 7. 12,03	B.
	α Ophiuchi.....	40,2	54,0	7,7	21,4	35,3	49,1	17. 28. 3,2		17. 27. 21,55	B.
	δ Ursæ Minoris...	.....	15.38,8	19.22,4	23. 9,7	26.57,8	30.42,5	18. 34. 31,3	- 1. 53,30	18. 23. 10,45	B.
	Saturn 1 L.....	33,2	.....	2,3	.....	32,0	.....	18. 45. 1,4	+ 0,02	18. 44. 17,24	B.
	Saturn 2 L.....	.....	51,4	.....	21,2	.....	49,7	18. 44.	- 0,03	18. 44. 20,74	B.
	Jupiter 1 L.....	38,1	.....	6,8	.....	37,0	.....	19. 15. 5,9	+ 0,02	19. 14. 21,97	B.
	Jupiter 2 L.....	.....	56,7	.....	25,9	.....	55,1	19. 14.	- 0,03	19. 14. 25,87	B.
	(d) Rigel.....	57,9	11,9	25,2	39,1	52,8	6,2	5. 7. 20,0		5. 6. 39,02	B.
	(e) β Tauri.....	15,7	30,9	46,1	1,6	17,1	32,0	5. 16. 47,6		5. 16. 1,57	B.
	(e) δ Ursæ Min. SP...	.....	15.22,8	19. 7,6	22.52,6	26.43,3	30.28,7	6. 34. 13,5	- 1. 53,29	6. 22. 54,79	B.
	(e) Procyon.....	3,3	17,1	30,5	44,2	57,6	11,1	7. 31. 24,8		7. 30. 44,09	B.
July 15	(f) \odot 1 L.....	5,3	20,1	34,2	48,9	4,0	18,2	7. 36. 32,2		7. 35. 48,99	B.
	\odot 2 L.....	22,1	36,8	51,1	5,4	20,3	34,5	7. 38. 49,3		7. 38. 5,64	B.
	(f) Spica.....	54,6	8,7	21,5	35,6	49,4	3,1	13. 17. 16,7		13. 16. 35,66	B.
	γ 1 L.....	58,2	13,0	27,1	42,0	56,6	11,1	13. 57. 25,7		13. 56. 41,95	B.
	ϵ Bootis.....	3,1	18,4	33,2	48,5	4,1	19,2	14. 38. 34,3		14. 37. 48,69	B.
	(g) α^2 Libræ.....	10,2	24,4	38,3	52,2	6,1	20,2	14. 42. 34,4		14. 41. 52,26	B.
	(h) α Ophiuchi.....	39,3	53,1	6,7	20,5	34,2	48,2	17. 28. 1,9		17. 27. 20,55	B.
	δ Ursæ Minoris...	11.47,4	15.36,5	19.18,3	23.13,7	26.56,7	30.41,3	18. 34. 30,4		18. 23. 9,19	B.
	Saturn 1 L.....	14,0	.....	43,0	.....	12,3	.....	18. 44. 41,1	+ 0,02	18. 43. 57,62	B.
	Saturn 2 L.....	.....	31,7	.....	1,4	.....	30,2	18. 44.	- 0,03	18. 44. 1,07	B.
	Jupiter 1 L.....	4,3	.....	32,9	.....	3,0	.....	19. 14. 32,0	+ 0,02	19. 13. 48,07	B.
	Jupiter 2 L.....	.....	22,8	.....	52,1	.....	20,9	19. 14.	- 0,03	19. 13. 51,90	B.
	(i) Rigel.....	57,1	10,9	24,3	38,1	51,7	5,3	5. 7. 18,8		5. 6. 38,03	B.
	(i) β Tauri.....	14,6	30,2	44,9	0,7	16,2	31,0	5. 16. 46,2		5. 16. 0,54	B.
	(i) Procyon.....	2,4	16,1	29,2	43,0	56,8	10,2	7. 31. 23,5		7. 30. 43,03	B.
July 16	(i) \odot 1 L.....	7,1	21,4	35,8	50,4	5,2	19,3	7. 40. 33,8		7. 39. 50,42	B.
	\odot 2 L.....	23,2	37,7	52,1	7,0	21,7	36,1	7. 42. 50,5		7. 42. 6,90	B.
	Arcturus.....	27,2	41,4	55,6	10,2	24,5	38,6	14. 8. 53,0		14. 8. 10,07	C.
	α^2 Libræ.....	9,9	23,8	37,7	51,8	5,8	19,6	14. 42. 33,6		14. 41. 51,74	C.
	γ 1 L.....	35,0	50,2	4,7	20,1	35,3	49,9	14. 54. 4,8		14. 53. 20,00	C.
	(k) κ Libræ.....	.....	.....	.....	34,4	48,8	2,8	15. 33. 17,1	- 21,40	15. 32. 34,37	C.
	δ Ophiuchi.....	7,2	20,5	33,9	47,5	1,1	14,5	16. 6. 27,9		16. 5. 47,52	C.
	Antares.....	42,4	57,4	12,2	27,3	42,3	57,2	16. 20. 12,4		16. 19. 27,32	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Clouds and loud wind. (b) Clouds and unsteadiness. (c) Cloudy. (d) Unsteady. (e) Faint and unsteady. (f) Great motion. (g) Very faint and doubtful. (h) The clock-error by this star is very discordant. (i) Much unsteadiness. The 'seconds of Transit corrected' of these observations have been increased by 0,28 for difference of personal equation between B and C. (k) Very faint.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,60	-5,23	+3,12	13,90	30,27	16,37	1,06	15,67	17. 7. 30,32	-3,54	α Herculis.
			23,48	39,76	16,28			17. 27. 39,92	-3,62	α Ophiuchi.
			4,40	21,94	17,54			18. 23. 20,88	-5,12	δ Ursæ Minoris.
			{ 58,16					18. 45. 14,66		Saturn's center.
			{ 31,86					19. 15. 48,38		Jupiter's center.
			{ 52,74			1,07	16,67	7. 29. 9,74		\odot 's center.
			50,70	8,13	17,43			14. 38. 8,02	-2,88	ϵ Bootis.
			12,76	30,27	17,51			17. 7. 30,19	-3,54	α Herculis.
			22,49	39,76	17,27			17. 27. 39,94	-3,62	α Ophiuchi.
			4,30	21,81	17,51			18. 23. 21,79	-4,99	δ Ursæ Minoris.
			{ 38,45			1,17	17,73	18. 44. 55,96		Saturn's center.
			{ 57,77					19. 15. 15,30		Jupiter's center.
			40,11	58,26	18,15			5. 6. 58,09	-1,37	Rigel.
			2,32	20,44	18,12			5. 16. 20,31	-1,95	β Tauri.
			{ 55,21			1,07	19,00	7. 33. 13,31		\odot 's center.
			49,65	8,11	18,46			14. 38. 8,09	-2,86	ϵ Bootis.
			11,83	30,26	18,43			17. 7. 30,39	-3,53	α Herculis.
			21,37	39,76	18,39			17. 27. 39,95	-3,62	α Ophiuchi.
			2,89	21,68	18,79			18. 23. 21,52	-4,86	δ Ursæ Minoris.
			{ 19,08			1,07	19,00	18. 44. 37,72		Saturn's center.
			{ 23,99					19. 14. 42,66		Jupiter's center.
			38,99	58,28	19,29			5. 6. 58,22	-1,39	Rigel.
			1,26	20,47	19,21			5. 16. 20,50	-1,98	β Tauri.
			2,26	21,60	19,34	1,08	19,78	6. 23. 21,54	-4,78	δ Ursæ Min. SP.
			43,96	3,12	19,16			7. 31. 3,29	-1,41	Procyon.
			{ 57,08					7. 37. 16,42		\odot 's center.
			35,64	55,42	19,78			13. 16. 55,23	-2,67	Spica.
			41,99					13. 57. 1,61		γ 1 L.
			48,38	8,10	19,72			14. 38. 8,03	-2,85	ϵ Bootis.
			52,28	12,22	19,94			14. 42. 11,93	-3,30	α^2 Libræ.
			20,37	39,75	19,38	1,08	19,78	17. 27. 40,15	-3,61	α Ophiuchi.
			1,63	21,52	19,89			18. 23. 21,45	-4,70	δ Ursæ Minoris.
			{ 59,43					18. 44. 19,26		Saturn's center.
			{ 50,07					19. 14. 9,93		Jupiter's center.
			38,28	58,31	20,03			5. 6. 58,29	-1,42	Rigel.
			0,51	20,50	19,99			5. 16. 20,53	-2,01	β Tauri.
			43,18	3,13	19,95			7. 31. 3,30	-1,42	Procyon.
			{ 58,70			1,08	19,78	7. 41. 18,82		\odot 's center.
			9,84	30,20	20,36			14. 8. 30,26	-2,73	Arcturus.
			51,76	12,22	20,46			14. 42. 12,20	-3,30	α^2 Libræ.
			20,09					14. 53. 40,54		γ 1 L.
			34,42			1,08	19,78	15. 32. 54,90	-3,70	κ Libræ.
			47,34	7,99	20,65			16. 6. 7,85	-3,58	δ Ophiuchi.
			27,42	48,00	20,58			16. 19. 47,93	-4,17	Antares.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
July 18	(a) ϵ Bootis.....	59,8	15,0	30,0	45,4	0,1	16,0	14.38.31,1		14.37.45,34	B.
	α Coronæ Borealis	55,0	10,2	25,0	40,4	55,8	10,6	15.28.25,8		15.27.40,40	B.
	Jupiter 1 L.....	23,8	....	52,9	....	22,0	....	19.12.50,9	+ 0,02	19.12.7,42	B.
	Jupiter 2 L.....	....	42,1	....	11,6	....	40,8	19.12.	- 0,03	19.12.11,47	B.
July 20	(b) \odot 1 L.....	9,1	23,2	37,4	52,1	6,6	20,9	7.56.35,2		7.55.52,07	B.
	\odot 2 L.....	24,2	39,0	53,2	8,0	22,3	36,6	7.58.51,1		7.58.7,77	B.
	Saturn 1 L.....	38,9	....	8,1	....	37,3	....	18.43.6,9	+ 0,02	18.42.22,82	B.
	Saturn 2 L.....	....	57,0	....	26,1	....	55,4	18.42.	- 0,03	18.42.26,14	B.
	(c) γ 1 L.....	52,2	7,5	22,4	37,9	53,3	8,2	18.46.23,4		18.45.37,85	B.
	π Sagittarii.....	17,8	32,1	46,4	1,3	15,9	30,1	19.0.44,4		19.0.1,14	B.
	Jupiter 1 L.....	17,1	....	45,9	....	16,0	....	19.11.44,9	+ 0,02	19.11.0,99	B.
	Jupiter 2 L.....	....	36,1	....	4,8	....	34,1	19.11.	- 0,03	19.11.4,97	B.
	(b) h^2 Sagittarii.....	59,8	15,2	29,3	44,7	59,8	14,4	19.27.28,9		19.26.44,58	B.
	(d) α Aquilæ.....	2,7	16,6	30,0	43,4	57,2	11,2	19.43.24,3		19.42.43,63	B.
	β Aquilæ.....	31,1	44,7	58,2	12,1	25,7	39,0	19.47.52,4		19.47.11,88	B.
	(e) α^2 Capricorni.....	14,9	28,2	42,1	56,1	10,2	24,1	20.9.37,4		20.8.56,14	B.
July 21	α Coronæ Borealis	51,7	7,1	21,9	37,3	52,4	7,3	15.28.22,7		15.27.37,20	B.
	α Serpentis.....	25,9	39,9	53,2	7,0	20,6	34,1	15.36.47,4		15.36.6,87	B.
	α Herculis.....	22,8	36,9	50,3	4,4	18,4	32,1	17.7.46,1		17.7.4,43	B.
	(f) α Ophiuchi.....	33,1	46,4	0,3	14,2	28,2	42,1	17.27.56,0		17.27.14,33	B.
	π Sagittarii.....	17,1	31,4	45,9	0,5	15,2	29,1	19.0.44,2		19.0.0,48	B.
	(a) Jupiter 1 L.....	44,2	....	13,6	....	43,1	....	19.11.12,2	+ 0,02	19.10.28,29	B.
	Jupiter 2 L.....	....	2,9	....	32,4	....	1,8	19.11.	- 0,03	19.10.32,34	B.
	h^2 Sagittarii.....	59,2	14,1	28,5	43,8	59,1	13,4	19.27.28,4		19.26.43,78	B.
	(g) γ 1 L.....	49,7	4,5	19,2	34,4	49,3	4,1	19.40.19,2		19.39.34,34	B.
	(h) α Aquilæ.....	2,1	15,4	28,9	42,9	56,3	9,9	19.43.23,3		19.42.42,68	B.
	β Aquilæ.....	30,7	44,1	57,4	11,2	24,9	38,2	19.47.51,9		19.47.11,20	B.
	α^2 Capricorni.....	13,9	28,1	41,3	55,2	9,3	22,9	20.9.36,9		20.8.55,37	B.
	ρ Capricorni.....	46,7	0,7	14,5	28,9	43,2	57,1	20.20.11,3		20.19.28,92	B.
July 23	(i) \odot 1 L.....	5,0	....	....	48,0	2,4	16,7	8.8.31,0	- 8,65	8.7.47,97	B.
	\odot 2 L.....	20,0	34,2	....	3,6	17,5	31,8	8.10.46,1	- 2,42	8.10.3,11	B.
	(k) β Leonis.....	....	....	21,0	35,0	49,0	2,7	11.41.16,9	- 13,96	11.40.34,96	B.
	ϵ Bootis.....	55,1	10,4	25,1	40,7	56,1	11,0	14.38.26,2		14.37.40,65	B.
	α Coronæ Borealis	50,1	5,4	20,2	35,7	50,9	5,7	15.28.21,0		15.27.35,57	B.
	α Herculis.....	21,1	35,1	49,2	3,1	17,0	30,5	17.7.44,4		17.7.2,91	B.
	α Ophiuchi.....	30,7	45,1	58,3	12,4	26,2	40,1	17.27.54,1		17.27.12,41	B.
	Saturn 1 L.....	44,8	....	13,8	....	43,1	....	18.42.12,1	+ 0,02	18.41.28,47	B.
	Saturn 2 L.....	....	2,7	....	32,0	....	1,1	18.42.	- 0,03	18.41.31,90	B.
	Jupiter 1 L.....	40,9	....	9,3	....	39,0	....	19.10.8,0	+ 0,02	19.9.24,32	B.
	Jupiter 2 L.....	....	58,7	....	28,0	....	57,1	19.9.	- 0,03	19.9.27,90	B.
	(h) α Aquilæ.....	0,1	13,9	27,2	41,2	55,0	8,3	19.43.22,2		19.42.41,13	B.
	(l) β Aquilæ.....	29,0	42,4	55,9	10,1	23,3	36,4	19.47.50,1		19.47.9,60	B.
	α^2 Capricorni.....	12,1	26,1	39,7	53,9	7,9	21,2	20.9.35,1		20.8.53,71	B.
	μ Aquarii.....	3,1	17,1	30,3	44,2	57,9	11,4	20.44.25,0		20.43.44,14	B.
	γ 2 L.....	48,9	3,1	17,1	31,4	45,7	59,8	21.21.14,0		21.20.31,42	B.
	λ Capricorni.....	56,2	10,1	24,0	38,0	51,4	5,4	21.38.19,1		21.37.37,75	B.
	ζ Aquarii.....	53,1	6,9	20,2	34,0	47,4	1,0	21.55.14,7		21.54.33,90	B.
July 25	(b) Saturn 1 L.....	8,8	....	38,0	....	7,2	....	18.41.36,3	+ 0,02	18.40.52,59	B.
	Saturn 2 L.....	....	26,5	....	55,6	....	24,7	18.41.	- 0,03	18.40.55,57	B.
	(b) Jupiter 1 L.....	36,7	....	6,0	....	35,3	....	19.9.4,9	+ 0,02	19.8.20,74	B.
	Jupiter 2 L.....	....	55,1	....	24,5	....	54,1	19.8.	- 0,03	19.8.24,40	B.
	(h) α Aquilæ.....	57,8	11,9	25,2	38,9	52,4	6,1	19.43.19,8		19.42.38,87	B.
	(b) β Aquilæ.....	26,7	40,4	53,8	7,8	21,1	34,4	19.47.47,9		19.47.7,45	B.
	α^2 Capricorni.....	10,1	24,0	37,7	51,6	5,2	19,2	20.9.33,1		20.8.51,55	B.
	(b) δ Ursæ Minoris SP.	....	15.8,7	18.54,8	22.40,5	....	30.14,2	6.34.2,3	- 1.30,18	6.22.41,92	B.
July 26	(b) \odot 1 L.....	55,8	9,9	23,9	38,0	52,2	5,9	8.20.20,3		8.19.38,00	B.
	\odot 2 L.....	10,1	24,1	38,2	52,4	6,6	21,1	8.22.35,2		8.21.52,53	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Hazy. (b) Cloudy.
(c) Ill-defined and unsteady.
(d) Blazing. The intervals are bad.
(e) Foggy.

(f) Gives a discordant clock-error.
(g) Much waving. (h) Blazing.
(i) Very cloudy. (k) Faint and unsteady.
(l) Confused.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,23	+ 3,12	45,03 40,09 9,54	8,06 2,99	23,03 22,90	1,06	22,31	19 . 12 . 32,70		ε Bootis. α Coronæ Borealis. Jupiter's center.
	- 5,74		59,65 24,56 37,94 1,20 3,06 44,67 43,46 11,72 56,12	8,40 37,10 21,36	24,94 25,38 25,24	0,90	24,44	7 . 57 . 24,39 18 . 42 . 49,70 18 . 46 . 3,08 19 . 0 . 26,35 19 . 11 . 28,22 19 . 27 . 9,84 19 . 43 . 8,64 19 . 47 . 36,90 20 . 9 . 21,32	- 4,61 - 4,76 - 3,92 - 3,95 - 4,34	☉'s center. Saturn's center. γ 1 L. π Sagittarii. Jupiter's center. h ² Sagittarii. α Aquilæ. β Aquilæ. α ² Capricorni.
			36,86 6,71 4,20 14,13 0,54 30,40 43,87 34,41 42,51 11,04 55,35 28,95	2,95 32,65 30,23 39,73	26,09 25,94 26,03 25,60	0,82	25,34	15 . 28 . 2,73 15 . 36 . 32,58 17 . 7 . 30,12 17 . 27 . 40,07 19 . 0 . 26,53 19 . 10 . 56,39 19 . 27 . 9,87 19 . 40 . 0,42 19 . 43 . 8,52 19 . 47 . 37,06 20 . 9 . 21,38 20 . 19 . 54,98	- 2,96 - 3,26 - 3,50 - 3,59 - 4,61	α Coronæ Borealis. α Serpentis. α Herculis. α Ophiuchi. π Sagittarii. Jupiter's center. h ² Sagittarii. γ 1 L. α Aquilæ. β Aquilæ. α ² Capricorni. ρ Capricorni.
		+ 3,67	55,30 34,75 40,31 35,25 2,70 12,23 30,31 26,23 40,98 9,47 53,72 44,14 31,45 37,77 33,87 54,20 22,69 38,72 7,32 51,56 50,22 45,06	1,87 7,98 2,92 30,22 39,72 8,42 37,12 21,39	27,12 27,67 27,67 27,52 27,49 27,44 27,65 27,67	0,93	26,87	8 . 9 . 22,48 11 . 41 . 2,07 14 . 38 . 7,75 15 . 28 . 2,72 17 . 7 . 30,23 17 . 27 . 39,78 18 . 41 . 57,90 19 . 9 . 53,84 19 . 43 . 8,61 19 . 47 . 37,11 20 . 9 . 21,37 20 . 44 . 11,81 21 . 20 . 59,15 21 . 38 . 5,48 21 . 55 . 1,59	- 2,07 - 2,73 - 2,93 - 3,49 - 3,58	☉'s center. β Leonis. ε Bootis. α Coronæ Borealis. α Herculis. α Ophiuchi. Saturn's center. Jupiter's center. α Aquilæ. β Aquilæ. α ² Capricorni. μ Aquarii. γ 2 L. λ Capricorni. 30 Aquarii.
						1,07	28,90	18 . 41 . 23,93 19 . 8 . 52,44 19 . 43 . 8,50 19 . 47 . 37,10 20 . 9 . 21,36 18 . 23 . 20,48	- 3,94 - 3,97 - 4,37 - 4,25 - 4,17 - 4,02	Saturn's center. Jupiter's center. α Aquilæ. β Aquilæ. α ² Capricorni. δ Ursæ Min. SP.
	- 5,24						29,97	8 . 21 . 15,40		☉'s center.

 July 23. 3^h, and July 28. 4^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
July 28	(a) ☉ 2 L. ....	...	...	28,2	42,4	57,0	11,3	8.30.25,3	-14,27	8.29.42,57	B.
July 29	(a) ☉ 1 L.	40,0	53,9	7,7	22,3	36,9	...	8.31.	+14,25	8.31.22,41	B.
	(a) α Serpentis	18,1	31,7	45,1	59,0	12,9	26,1	15.36.39,4		15.35.58,90	B.
	(a) δ Ophiuchi.....	53,4	7,2	20,6	34,1	47,4	0,9	16.6.14,2		16.5.33,97	B.
	α Herculis.....	14,9	28,4	42,2	56,4	10,2	24,1	17.7.38,1		17.6.56,33	B.
	α Ophiuchi.....	24,4	38,2	52,1	6,2	20,0	33,9	17.27.37,4		17.27.6,03	B.
	(a) δ Ursæ Minoris...	11.32,3	15.18,8	19.3,4	22.53,2	26.39,7	30.25,6	18.34.11,2		18.22.52,03	B.
	Saturn 1 L.....	59,3	...	28,1	...	58,1	...	18.40.27,2	+0,02	18.39.43,19	B.
	Saturn 2 L.....	...	17,6	...	46,3	...	15,6	18.40.	-0,03	18.39.46,47	B.
	(b) Jupiter 1 L.....	33,8	...	3,0	...	31,7	...	19.7.1,4	+0,02	19.6.17,49	B.
	Jupiter 2 L.....	...	52,1	...	21,4	...	50,8	19.6.	-0,03	19.6.21,40	B.
	(c) α Aquilæ.....	53,5	7,4	20,9	35,0	48,3	2,1	19.43.15,4		19.42.34,66	B.
	β Aquilæ.....	22,9	36,1	49,4	3,3	16,9	30,1	19.47.43,9		19.47.3,23	B.
	(d) Σ 2610.....	53,0	9,1	25,2	42,0	58,9	15,0	19.53.31,9		19.52.42,15	B.
	Σ 2635.....	18,3	31,9	45,0	58,9	13,0	26,2	20.2.40,0		20.1.59,05	B.
	(e) α² Capricorni.....	5,9	19,9	33,1	47,1	1,2	15,1	20.9.29,0		20.8.47,33	B.
	(f) δ Ursæ Min. SP...	...	...	18.47,4	22.34,7	26.24,8	50.9,5	6.	-1.53,26	6.22.35,84	B.
July 30	Areturus.....	12,4	27,0	40,9	55,4	9,9	24,0	14.8.38,3		14.7.55,41	B.
	ε Bootis.....	47,7	3,0	18,0	33,2	48,5	3,7	14.38.18,9		14.37.33,28	B.
	κ Herculis.....	43,0	57,2	11,0	25,3	39,6	53,7	16.1.7,9		16.0.25,39	B.
	δ Ophiuchi.....	52,4	5,9	19,3	33,1	46,4	59,9	16.6.13,5		16.5.32,93	B.
	(a) δ Ursæ Minoris...	...	15.19,8	19.1,5	22.52,6	26.38,7	30.23,8	18.	-0,02	18.22.51,26	B.
	(a) β Aquilæ.....	...	...	48,5	2,2	15,7	29,4	19.47.43,2	-13,52	19.47.2,28	B.
	(a) α² Capricorni.....	5,2	19,2	32,6	47,0	0,4	14,2	20.9.28,1		20.8.46,67	B.
Aug. 1	(g) ☉ 1 L.	20,1	34,2	48,3	2,7	17,0	31,1	8.43.45,3		8.43.2,67	B.
	☉ 2 L.	33,9	48,0	2,1	16,8	30,9	44,4	8.45.59,0		8.45.16,44	B.
	(a) α Coronæ Borealis	41,1	56,4	11,5	27,1	42,1	57,0	15.28.12,1		15.27.26,76	B.
	α Serpentis.....	15,7	29,2	42,9	56,4	10,0	23,5	15.36.37,1		15.35.56,40	B.
	κ Herculis.....	41,4	55,8	9,8	24,0	38,0	51,9	16.1.6,1		16.0.23,86	B.
	δ Ophiuchi.....	51,1	4,7	18,0	31,6	45,0	58,4	16.6.12,1		16.5.31,55	B.
	α Herculis.....	12,4	26,1	40,1	54,1	7,9	22,1	17.7.36,1		17.6.54,11	B.
	Saturn 1 L.....	11,0	...	39,4	...	9,1	...	18.39.38,3	+0,02	18.38.54,47	B.
	Saturn 2 L.....	...	28,7	...	57,8	...	26,9	18.39.	-0,03	18.38.57,77	B.
	Jupiter 1 L.....	6,5	...	35,7	...	5,2	...	19.5.34,1	+0,02	19.4.50,39	B.
	Jupiter 2 L.....	...	25,2	...	54,4	...	23,7	19.5.	-0,03	19.4.54,40	B.
	α Aquilæ.....	51,3	4,9	18,5	32,2	46,1	59,3	19.43.13,1		19.42.32,20	B.
	β Aquilæ.....	20,3	33,7	47,2	1,0	14,5	28,0	19.47.41,4		19.47.0,87	B.
	Σ 2606.....	6,7	22,3	38,1	54,2	10,4	26,2	19.52.42,1		19.51.54,29	B.
	α² Capricorni.....	3,9	17,4	30,9	45,2	59,0	13,1	20.9.26,3		20.8.45,11	B.
	(h) Aldebaran.....	35,4	49,9	3,4	17,7	32,0	45,5	4.26.59,8		4.26.17,67	B.
	(i) ☽ 2 L.....	27,9	43,3	58,9	14,2	...	44,9	4.41.	+12,28	4.41.14,12	B.
Aug. 2	(k) ☉ 1 L.	12,1	26,3	40,4	54,9	8,9	23,0	8.47.37,8		8.46.54,77	B.
	☉ 2 L.	25,7	39,9	53,8	8,4	22,6	36,8	8.49.51,0		8.49.8,32	B.
	Jupiter 1 L.....	38,6	...	7,6	...	37,3	...	19.5.6,4	+0,02	19.4.22,49	C.
	Jupiter 2 L.....	...	56,7	...	26,1	...	55,1	19.4.	-0,03	19.4.25,94	C.
	α Aquilæ.....	50,7	4,5	17,8	31,5	45,1	58,6	19.43.12,4		19.42.31,51	C.
	β Aquilæ.....	19,7	33,2	46,6	0,2	13,9	27,3	19.47.40,9		19.47.0,25	C.
	(l) α² Capricorni.....	2,6	...	30,3	44,2	58,3	12,0	20.9.25,6	-4,60	20.8.44,23	C.
Aug. 3	☉ 1 L.	4,4	18,4	32,3	46,7	0,9	15,1	8.51.29,3		8.50.46,73	C.
	☉ 2 L.	16,8	31,0	45,1	59,3	13,5	27,8	8.53.42,0		8.52.59,36	C.
	α Coronæ Borealis	39,6	54,8	9,7	25,1	40,3	55,2	15.28.10,5		15.27.25,03	C.
	α Serpentis.....	14,1	27,5	41,0	54,8	8,4	21,9	15.36.35,4		15.35.54,73	C.
	(m) δ Ophiuchi.....	49,2	2,9	16,2	29,9	43,4	56,7	16.6.10,2		16.5.29,93	C.
	Antares.....	24,7	39,8	54,5	9,7	24,7	39,4	16.19.54,6		16.19.9,63	C.
	(n) Saturn 1 L.....	39,8	...	8,6	...	38,2	...	18.39.7,2	+0,02	18.38.23,47	C.
	Saturn 2 L.....	...	57,3	...	26,3	...	55,4	18.38.	-0,03	18.38.26,30	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Cloudy. (b) Hazy. (c) Blazing. (d) Set down 'sp'; probably by mistake for np. See Sept. 15.
 (e) Flaring. (f) Faint and unsteady. (g) Cloudy and unsteady. (h) The clock-error by this observation, diminished by 0,28 for difference of personal equation between B and C, is grouped with those of Aug. 2, but the clock-error and clock-rate of Aug. 1 are continued to the end of B's observations. (i) Rugged limb and very cloudy.
 (k) Great unsteadiness. (l) Cloudy and unsatisfactory. (m) The counting was found to be 20° in advance.
 (n) Not satisfactory.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,60	-5,24	+3,67	42,36			1,00	32,21	8.30.14,92		☉ 2 L.
			22,20				33,21	8.31.55,76		☉ 1 L.
			58,79	32,56	33,77			15.36.32,65	-3,17	α Serpentis.
			33,81	7,89	34,08			16.6.7,69	-3,48	δ Ophiuchi.
			56,15	30,18	34,03			17.7.30,07	-3,45	α Herculis.
			5,87	39,69	33,82			17.27.39,81	-3,55	α Ophiuchi.
			44,11	18,44	34,33			18.23.18,09	-1,62	δ Ursæ Minoris.
			44,96					18.40.18,95		Saturn's center.
			19,58					19.6.53,59		Jupiter's center.
			34,53	8,45	33,92			19.43.8,56	-3,97	α Aquilæ.
			3,12	37,15	34,03			19.47.37,15	-4,00	β Aquilæ.
			41,78					19.53.15,82	-3,60	Σ 2610.
			58,93					20.2.32,97	-3,98	Σ 2635.
			47,36	21,45	34,09			20.9.21,41	-4,43	α^2 Capricorni.
			43,72	18,32	34,60	0,92	34,26	18.23.18,22	-1,50	δ Ursæ Min. SP.
			55,20	30,01	34,81			14.8.30,00	-2,54	Arcturus.
			32,98	7,87	34,89			14.38.7,80	-2,62	ϵ Bootis.
			25,20					16.1.0,07	-3,11	κ Herculis.
			32,77	7,88	35,11			16.6.7,65	-3,47	δ Ophiuchi.
			43,34	18,20	34,86			18.23.18,30	-1,38	δ Ursæ Minoris.
			2,17	37,16	34,99			19.47.37,19	-4,01	β Aquilæ.
			46,70	21,46	34,76			20.9.21,73	-4,44	α^2 Capricorni.
			9,37			0,85	35,71	8.44.45,39		☉'s center.
			26,47	2,79	36,32			15.28.2,73	-2,80	α Coronæ Borealis.
			56,29	32,52	36,23			15.36.32,55	-3,13	α Serpentis.
			23,67					16.0.59,95	-3,09	κ Herculis.
			31,39	7,86	36,47			16.6.7,67	-3,45	δ Ophiuchi.
			53,93	30,15	36,22			17.7.30,25	-3,42	α Herculis.
			56,25					18.39.32,62		Saturn's center.
			52,53					19.5.28,92		Jupiter's center.
			32,07	8,46	36,39			19.43.8,48	-3,98	α Aquilæ.
			0,76	37,16	36,40			19.47.37,17	-4,01	β Aquilæ.
			53,95					19.52.30,36	-3,62	Σ 2606.
			45,14	21,47	36,33			20.9.21,56	-4,45	α^2 Capricorni.
			17,49	54,13	36,64		36,56	4.26.54,21	-2,48	Aldebaran.
			13,85					4.41.50,58		☉ 2 L.
			1,36					8.48.38,23		☉'s center.
	-5,16		24,35			0,98	36,27	19.5.1,40		Jupiter's center.
			31,39	8,47	37,08			19.43.8,46	-3,99	α Aquilæ.
			0,15	37,17	37,02			19.47.37,23	-4,02	β Aquilæ.
			44,26	21,48	37,22			20.9.21,35	-4,46	α^2 Capricorni.
			52,86			1,08	37,28	8.52.30,54		☉'s center.
			24,75	2,76	38,01			15.28.2,73	-2,77	α Coronæ Borealis.
			54,63	32,50	37,87			15.36.32,61	-3,11	α Serpentis.
			29,78	7,84	38,06			16.6.7,78	-3,43	δ Ophiuchi.
			9,77	47,84	38,07			16.19.47,78	-4,01	Antares.
			25,02					18.39.3,14		Saturn's center.

Aug. 6. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Aug. 3	Jupiter 1 L.....	10,8	.....	39,9	.....	9,5	.....	19. 4. 38,6	+ 0,02	19. 3. 54,72	C.
	Jupiter 2 L.....	.....	29,0	.....	58,3	.....	27,2	19. 4.	- 0,03	19. 3. 58,14	C.
Aug. 4	(a) ☉ 1 L.....	55,4	9,4	23,3	37,7	51,6	5,8	8. 55. 20,0		8. 54. 37,60	C.
	☉ 2 L.....	7,7	21,8	35,8	50,2	4,4	18,3	8. 57. 32,5		8. 56. 50,10	C.
	Saturn 1 L.....	23,9	.....	53,1	.....	22,6	.....	18. 38. 51,7	+ 0,02	18. 38. 7,84	C.
	Saturn 2 L.....	.....	41,3	.....	11,0	.....	40,1	18. 38.	- 0,03	18. 38. 10,77	C.
	(b) Jupiter 1 L.....	43,3	.....	12,3	.....	41,7	.....	19. 4. 10,9	+ 0,02	19. 3. 27,07	C.
	Jupiter 2 L.....	.....	1,3	.....	30,6	.....	59,8	19. 3.	- 0,03	19. 3. 30,54	C.
	α Aquilæ.....	48,5	2,1	15,5	29,5	43,1	56,6	19. 43. 10,2		19. 42. 29,36	C.
	β Aquilæ.....	17,4	31,0	44,3	58,1	11,5	25,0	19. 47. 38,6		19. 46. 57,99	C.
	α² Capricorni.....	0,8	14,5	28,2	42,0	56,0	9,8	20. 9. 23,6		20. 8. 42,13	C.
	(c) Aldebaran.....	32,5	46,8	0,6	15,0	28,7	42,7	4. 26. 56,7		4. 26. 14,71	C.
Aug. 5	(d) α Herculis.....	8,2	22,2	36,0	50,1	3,9	17,8	17. 7. 31,7		17. 6. 40,98	C.
	(e) Saturn 1 L.....	8,7	.....	37,8	.....	7,3	.....	18. 38. 36,3	+ 0,02	18. 37. 52,54	C.
	Saturn 2 L.....	.....	26,4	.....	55,5	.....	24,5	18. 38.	- 0,03	18. 37. 55,44	C.
	(f) Jupiter 1 L.....	16,5	.....	45,6	.....	14,8	.....	19. 3. 44,2	+ 0,02	19. 3. 0,29	C.
	Jupiter 2 L.....	.....	34,5	.....	3,6	.....	32,9	19. 3.	- 0,03	19. 3. 3,64	C.
	β Aquilæ.....	16,4	30,0	43,2	57,1	10,6	24,1	19. 47. 37,6		19. 46. 57,00	C.
	(g) α² Capricorni.....	59,7	13,6	27,2	41,2	55,1	8,5	20. 9. 22,5		20. 8. 41,11	C.
Aug. 6	δ Ursæ Minoris...	11.20,6	15. 9,0	18.53,7	22.42,8	26.30,3	30.14,7	18. 34. 2,2		18. 22. 41,90	G.
	Saturn 1 L.....	53,7	.....	22,7	.....	52,2	.....	18. 38. 21,3	+ 0,02	18. 37. 37,49	C.
	Saturn 2 L.....	.....	11,4	.....	40,4	.....	9,6	18. 38.	- 0,03	18. 37. 40,44	C.
	Jupiter 1 L.....	49,8	.....	19,1	.....	48,5	.....	19. 3. 17,6	+ 0,02	19. 2. 33,77	C.
	Jupiter 2 L.....	.....	8,1	.....	37,3	.....	6,4	19. 3.	- 0,03	19. 2. 37,24	C.
	α Aquilæ.....	46,3	59,8	13,4	27,1	40,7	54,4	19. 43. 7,9		19. 42. 27,09	C.
	β Aquilæ.....	15,1	29,0	42,2	55,7	9,5	22,9	19. 47. 36,4		19. 46. 55,83	C.
	α² Capricorni.....	58,4	12,2	26,0	40,0	53,7	7,6	20. 9. 21,4		20. 8. 39,90	C.
Aug. 8	(h) ☉ 1 L.....	.....	.....	40,4	54,7	8,8	22,7	9. 10. 36,8	- 14,04	9. 9. 54,64	C.
	☉ 2 L.....	24,3	38,4	52,1	6,4	20,6	34,4	9. 12. 48,7		9. 12. 6,42	C.
	(i) δ Ophiuchi.....	43,6	57,2	10,5	24,3	37,8	51,0	16. 6. 4,6		16. 5. 24,14	C.
	(k) Antares.....	19,1	34,0	48,8	4,1	19,1	34,0	16. 19. 49,0		16. 19. 4,01	C.
	(l) δ Ursæ Minoris...	11.17,7	.....	18.48,2	.....	26.27,3	30.11,0	18.	+ 57,05	18. 22. 38,10	C.
	(j) 51 (Hcv.) Cep. SP.	.....	14.20,0	.....	23.40,3	28.25,8	33. 5,0	18.	- 1. 10,75	18. 23. 42,02	C.
	(m) Saturn 1 L.....	.....	.....	53,7	.....	23,4	.....	18. 37. 52,5	- 14,56	18. 37. 8,64	C.
	Saturn 2 L.....	.....	.....	.....	11,4	.....	40,6	18. 37.	- 14,60	18. 37. 11,40	C.
	(n) Jupiter 1 L.....	59,2	.....	28,3	.....	57,7	.....	19. 2. 26,7	+ 0,02	19. 1. 42,99	C.
	Jupiter 2 L.....	.....	17,3	.....	46,2	.....	15,7	19. 2.	- 0,03	19. 1. 46,37	C.
	α Aquilæ.....	44,2	57,8	11,2	25,1	38,6	52,1	19. 43. 5,8		19. 42. 24,97	C.
	β Aquilæ.....	13,0	26,6	40,1	53,7	7,3	20,6	19. 47. 34,2		19. 46. 53,64	C.
	β Aquarii.....	54,4	7,9	21,3	34,9	48,5	2,1	21. 23. 15,6		21. 22. 34,96	C.
	(o) Castor.....	.....	.....	32,5	49,0	4,8	20,5	7. 24. 36,4	- 15,91	7. 23. 48,73	C.
Aug. 9	☉ 1 L.....	0,5	14,3	28,2	42,3	56,4	10,5	9. 14. 24,6		9. 13. 42,40	C.
	☉ 2 L.....	12,0	26,2	40,0	54,4	8,4	22,3	9. 16. 36,2		9. 15. 54,21	C.
	α Coronæ Borealis.	33,1	48,1	3,0	18,5	33,6	48,6	15. 28. 3,8		15. 27. 18,39	C.
	α Serpentis.....	7,2	20,9	34,3	48,1	1,5	15,0	15. 36. 28,6		15. 35. 47,95	C.
	β¹ Scorpii.....	51,6	6,0	20,0	34,4	48,9	2,9	15. 56. 17,3		15. 55. 34,44	C.
	δ Ophiuchi.....	42,5	56,2	9,4	23,1	36,6	50,0	16. 6. 3,5		16. 5. 23,04	C.
	Antares.....	18,1	33,0	47,8	2,9	17,8	32,9	16. 19. 47,9		16. 19. 2,91	C.
	Piazzi xvii. 300. p.	5,3	19,4	33,3	47,7	2,1	16,0	17. 49. 30,3		17. 48. 47,73	C.
	(p) δ Ursæ Minoris...	11.16,8	.....	18.47,0	.....	26.26,0	30.10,1	18. 33. 57,0	- 1. 30,38	18. 22. 37,00	C.
	(p) 51 (Hcv.) Cep. SP.	9.35,4	14.18,2	.....	23.39,0	28.26,2	33. 3,5	18.	+ 1. 52,27	18. 23. 40,73	C.
	(q) Saturn 1 L.....	.....	.....	39,7	.....	8,8	.....	18. 37. 38,4	- 14,56	18. 36. 54,41	C.
	Saturn 2 L.....	.....	.....	.....	57,5	.....	26,4	18. 37.	- 14,60	18. 36. 57,35	C.
	(r) Σ 2448.....	.....	.....	.....	19,3	35,8	52,2	18. 58. 8,9	- 24,82	18. 57. 19,23	C.
	Jupiter 1 L.....	34,5	.....	3,6	.....	33,4	.....	19. 2. 2,4	+ 0,02	19. 1. 18,49	C.
	Jupiter 2 L.....	.....	52,7	.....	22,0	.....	51,1	19. 1.	- 0,03	19. 1. 21,90	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Hazy and steady. (b) Very great waving. (c) Cloudy at wire IV. (d) Scarcely day-light enough. (e) Not satisfactory.
 (f) Confused. (g) Wires VI and VII very cloudy and doubtful. (h) Cloudy. (i) Wires I and II have each been increased 1^s, the
 counting being corrected at wire III by looking at the clock. (k) Good. (l) Wires lost in consequence of the difference of R.A. being nearly
 12^h. These observations were taken for meridian error. (m) Hurried; close after the preceding. (n) Wire VII was set down confusedly 27,7.
 (o) Doubtful from faintness: 1^s has been added to each wire. (p) Taken as on Aug. 8. (q) Hurried in consequence of wrong setting. Wire V
 has been increased 1^s. (r) Seen double.

Error of Collima- tion.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock ap- parently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,16	+ 3,67	56,56			1,08	37,28	19 . 4 . 34,70		Jupiter's center.
		+ 2,53	43,62			1,11	38,42	8 . 56 . 22,45		☉'s center.
			9,36					18 . 38 . 48,64		Saturn's center.
			28,86					19 . 4 . 8,16		Jupiter's center.
			29,19	8,47	39,28			19 . 43 . 8,52	- 3,99	α Aquilæ.
			57,83	37,17	39,34			19 . 47 . 37,16	- 4,02	β Aquilæ.
			42,09	21,49	39,40			20 . 9 . 21,44	- 4,47	α^2 Capricorni.
			14,48	54,22	39,74	1,10	39,50	4 . 26 . 54,18	- 2,57	Aldebaran.
			49,77	30,10	40,33			17 . 7 . 30,05	- 3,37	α Herculis.
			54,04					18 . 38 . 34,39		Saturn's center.
			2,02					19 . 3 . 42,39		Jupiter's center.
			56,84	37,17	40,33			19 . 47 . 37,25	- 4,02	β Aquilæ.
			41,07	21,49	40,42			20 . 9 . 21,49	- 4,47	α^2 Capricorni.
			34,77	16,08	41,31	1,13	40,62	18 . 23 . 16,26	+ 0,74	δ Ursæ Minoris.
			39,02					18 . 38 . 20,52		Saturn's center.
			35,56					19 . 3 . 17,07		Jupiter's center.
			26,92	8,47	41,55			19 . 43 . 8,47	- 3,99	α Aquilæ.
			55,67	37,17	41,50			19 . 47 . 37,22	- 4,02	β Aquilæ.
			39,86	21,50	41,64			20 . 9 . 21,43	- 4,48	α^2 Capricorni.
			0,30			1,13	42,85	9 . 11 . 43,58		☉'s center.
			23,94	7,78	43,84			16 . 6 . 7,55	- 3,37	δ Ophiuchi.
			4,06	47,78	43,72			16 . 19 . 47,68	- 3,95	Antares.
			30,97	15,52	44,55			18 . 23 . 14,69	+ 1,30	δ Ursæ Minoris.
			50,61	35,05	44,44			18 . 24 . 34,33	- 8,08	51 (Hev.) Cep. SP.
			10,07					18 . 37 . 53,80		Saturn's center.
			44,73					19 . 2 . 28,47		Jupiter's center.
			24,80	8,48	43,68			19 . 43 . 8,58	- 4,00	α Aquilæ.
			53,48	37,18	43,70			19 . 47 . 37,26	- 4,03	β Aquilæ.
			34,89	18,62	43,73			21 . 23 . 18,75	- 4,32	β Aquarii.
			48,37	32,94	44,57	1,07	44,03	7 . 24 . 32,73	- 2,29	Castor.
			48,08					9 . 15 . 32,52		☉'s center.
			18,07	2,66	44,59			15 . 28 . 2,79	- 2,67	α Coronæ Bor.
			47,79	32,42	44,63			15 . 36 . 32,52	- 3,03	α Serpentis.
			34,45					15 . 56 . 19,19	- 3,60	β^1 Scorpii.
			22,84	7,77	44,93			16 . 6 . 7,59	- 3,36	δ Ophiuchi.
			2,96	47,77	44,81			16 . 19 . 47,72	- 3,94	Antares.
			47,49					17 . 49 . 32,31	- 3,43	Piazzii xvii. 300. p.
			29,87	15,26	45,39			18 . 23 . 14,72	+ 1,56	δ Ursæ Minoris.
			49,32	35,38	46,06			18 . 24 . 34,17	- 8,41	51 (Hev.) Cep. SP.
			55,93					18 . 37 . 40,79		Saturn's center.
			18,84					18 . 58 . 3,72	- 3,39	Σ 2448.
			20,25					19 . 2 . 5,13		Jupiter's center.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Aug. 9	γ Aquilæ	23,2	37,1	50,4	4,4	18,2	31,6	19.38.45,2		19.38.43,30	C.
	(a) α Aquilæ	43,2	56,7	10,2	24,1	37,5	51,0	19.43.4,6		19.42.23,90	C.
	β Aquilæ	12,0	25,3	38,8	52,5	6,0	19,6	19.47.33,2		19.46.52,48	C.
	59 Cygni	47,6	7,2	26,6	46,6	6,4	25,8	20.54.45,7		20.53.46,56	C.
Aug. 10	(b) \odot 1 L.				29,7	43,7	57,6	9.18.11,6	-21,04	9.17.29,61	C.
	\odot 2 L.	59,0	13,0					9.19.	+35,01	9.19.41,01	C.
	(c) α Coronæ Borealis			2,1	17,4	32,5	47,5	15.28.2,7	-15,15	15.27.17,29	C.
	(d) α Serpentis	6,1	19,9	33,1	47,0	0,5	14,1	15.36.27,5		15.35.46,89	C.
	(e) δ Ursæ Minoris SP.					26.10,0	29.54,5	6.	-5.40,89	6.22.21,36	C.
Aug. 11	(f) \odot 1 L.	34,4	48,5	2,0	16,4	30,4	44,3	9.21.58,2		9.21.16,32	C.
	\odot 2 L.	45,7	59,6	13,8	28,0	41,6	56,1	9.24.9,9		9.23.27,82	C.
	(g) \odot 1 L.	34,6	49,3	3,4	18,2	32,5	46,8	13.38.1,4		13.37.18,03	C.
	α Coronæ Borealis	30,8	46,2	0,7	16,3	31,5	46,5	15.28.1,6		15.27.16,23	C.
	(h) α Serpentis	5,1	18,7	32,1	46,0	59,5	13,0	15.36.26,4		15.35.45,83	C.
	β^1 Scorp.	49,4	3,9	17,8	32,5	46,6	0,7	15.56.15,1		15.55.32,28	C.
	δ Ophiuchi.	40,4	54,0	7,2	21,0	34,4	47,9	16.6.1,3		16.5.20,88	C.
	(i) Antares.	15,7	30,7	45,5	0,8	15,8	30,7	16.19.45,6		16.19.0,68	C.
	(k) Saturn 1 L.	43,7		12,7		42,3		18.37.11,3	+0,02	18.36.27,52	C.
	Saturn 2 L.		1,4		30,5		59,4	18.36.	-0,03	18.36.30,40	C.
	(k) Jupiter 1 L.	47,5		16,7		46,0		19.0.	+14,65	19.0.31,38	C.
	Jupiter 2 L.		5,5		34,7		4,0	19.1.18,5	-10,99	19.0.34,68	C.
	α^2 Capricorni.	53,1	6,9	20,5	34,5	48,5	2,0	20.9.15,7		20.8.34,46	C.
	59 Cygni.	45,4	5,3	24,5	44,7	4,5	23,8	20.54.43,6		20.53.44,54	C.
Aug. 12	(l) \odot 1 L.				2,6	16,5	30,6	9.25.44,5	-20,99	9.25.2,56	C.
	\odot 2 L.	31,8	46,0	59,5	13,9	27,9	41,6	9.27.55,7		9.27.13,77	C.
	Saturn 1 L.	31,1		59,8		29,5		18.36.58,5	+0,02	18.36.14,74	C.
	Saturn 2 L.		48,4		17,6		46,7	18.36.	-0,03	18.36.17,54	C.
	(m) Jupiter 1 L.	25,0		53,9		23,5		19.0.	+14,65	19.0.8,78	G.
	Jupiter 2 L.		43,0		12,3		41,5	19.0.	-0,03	19.0.12,24	G.
	(n) α Aquilæ	40,1	53,7	7,1	20,9	34,7	48,2	19.43.1,6		19.42.20,90	G.
	β Aquilæ	9,0	22,6	35,9	49,5	3,0	16,5	19.47.30,1		19.46.49,52	G.
	α^2 Capricorni.	52,2	6,1	19,8	33,9	47,5	1,1	20.9.15,3		20.8.33,70	G.
Aug. 13	Arcturus.	58,4	12,8	27,0	41,6	55,7	10,0	14.8.24,5		14.7.41,43	C.
	α Ophiuchi.	9,8	23,7	37,3	51,2	5,0	18,8	17.27.32,5		17.26.51,18	G.
	Saturn 1 L.	18,2		47,1		16,9		18.36.	+14,61	18.36.2,01	G.
	Saturn 2 L.		35,7		5,1		34,4	18.36.	-0,03	18.36.5,04	G.
	Jupiter 1 L.	3,0		32,2		1,6		19.0.	+14,65	18.59.46,92	G.
	Jupiter 2 L.		21,1		50,3		19,7	19.0.	-0,03	18.59.50,34	G.
	α Aquilæ	39,2	52,8	6,1	19,9	33,8	47,2	19.43.0,5		19.42.19,93	G.
	β Aquilæ	8,0	21,5	35,0	48,8	2,1	15,6	19.47.29,1		19.46.48,59	G.
	α^2 Capricorni.	51,2	5,1	18,8	32,7	46,8	0,6	20.9.14,3		20.8.32,78	G.
Aug. 14	Rigel.	27,6	41,4	54,8	8,6	22,2	35,9	5.6.49,5		5.6.8,57	C.
	(o) β Tauri.		0,7	15,8	31,4	46,5	1,9	5.16.17,3	-7,65	5.15.31,28	C.
	(p) α Orionis	8,3	22,3	35,5	49,4	2,9	16,2	5.46.30,0		5.45.49,23	C.
	(q) δ Ursæ Minoris SP.			18.28,0	22.14,6		29.48,5	6.33.36,3	-3.46,09	6.22.15,76	C.
	(r) Sirius.	40,3	54,4	8,1	22,5	36,6	50,4	6.38.4,4		6.37.22,38	C.
Aug. 15	\odot 1 L.	35,6	49,4	3,0	17,4	31,3	45,0	9.36.58,8		9.36.17,22	C.
	(s) \odot 2 L.	46,1	0,2	13,6	28,0	42,1	55,8	9.39.9,6		9.38.27,92	C.
	α Coronæ Borealis	26,5	41,5	56,6	12,1	27,2	42,2	15.27.57,3		15.27.11,91	C.
	(t) α Serpentis	1,2	14,4	27,9	41,4	55,2	8,6	15.36.22,2		15.35.41,55	C.
	(r) δ Ophiuchi.	36,1	49,7	2,9	16,6	30,2	43,4	16.5.57,1		16.5.16,57	C.
	Antares.	11,5	26,5	41,5	56,6	11,4	26,5	16.19.41,5		16.18.56,50	C.
	η Ophiuchi.	50,2	4,3	18,0	32,2	46,3	0,1	17.1.14,2		17.0.32,18	C.
	α Herculis.	57,5	11,4	25,1	39,2	53,2	7,0	17.7.21,0		17.6.39,20	C.
	θ Ophiuchi.	47,4	2,1	16,7	31,6	46,7	1,4	17.12.16,2		17.11.31,73	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Flaring. (b) Clouded: a very doubtful observation. (c) Cloudy. (d) Wire I hurried. (e) Mere guess, so faint. (f) Great vibration. (g) Somewhat faint. (h) Wire II was set down 17,7. (i) Good. (k) Confused. (l) Hurried at first, afterwards satisfactory. Seconds of wire IV of 1 L. not being taken from the clock, were corrected by wire V. (m) Much hurried. (n) Disturbed by a carriage passing. (o) Not good: the eye-glass was out of focus. (p) Very unsteady. (q) Extremely faint: could not be seen at wire V. (r) Unsteady. (s) The counting for this Lumb was 5^s in advance of the clock: correction applied accordingly. (t) Disturbed by noise in the court.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,16	+ 2,53	4,12			1,07	44,03	19 . 38 . 49,03	- 3,93	γ Aquilæ.
			23,73	8,48	44,75			19 . 43 . 8,64	- 4,00	α Aquilæ.
			52,32	37,18	44,86			19 . 47 . 37,23	- 4,03	β Aquilæ.
			46,02					20 . 54 . 30,98	- 3,68	59 Cygni.
			} 35,08			1,08	44,98	9 . 19 . 20,48		☉'s center.
										α Coronæ Borealis.
				2,64	45,67					α Serpentis.
				32,41	45,68					δ Ursæ Min. SP.
			28,34	14,85	46,51	1,10	46,15	18 . 23 . 14,78	+ 1,97	
			} 21,86					9 . 23 . 8,44		☉'s center.
								13 . 38 . 4,80		γ 1 L.
				2,62	46,71			15 . 28 . 2,77	- 2,63	α Coronæ Borealis.
				32,39	46,72			15 . 36 . 32,53	- 3,00	α Serpentis.
	- 5,16		32,29					15 . 56 . 19,17	- 3,58	β ¹ Scorpil.
			20,68	7,74	47,06			16 . 6 . 7,57	- 3,33	δ Ophiuchi.
			0,73	47,74	47,01			16 . 19 . 47,63	- 3,91	Antares.
			} 29,01					18 . 37 . 16,01		Saturn's center.
								19 . 1 . 20,10		Jupiter's center.
			} 33,08					20 . 9 . 21,49	- 4,49	α ² Capricorni.
				21,51	47,09			20 . 54 . 31,11	- 3,68	59 Cygni.
			34,42							
			44,00							
			} 7,96			0,95	47,01	9 . 26 . 55,34		☉'s center.
								18 . 37 . 3,94		Saturn's center.
			} 16,19					19 . 0 . 58,32		Jupiter's center.
								19 . 43 . 8,52	- 3,99	α Aquilæ.
			20,73	8,47	47,74			19 . 47 . 37,15	- 4,02	β Aquilæ.
			49,36	37,17	47,81			20 . 9 . 21,47	- 4,49	α ² Capricorni.
			33,66	21,51	47,85					
			} 41,17	29,81	48,64	0,99	47,94	14 . 8 . 29,69	- 2,34	Arcturus.
				39,54	48,57			17 . 27 . 39,63	- 3,40	α Ophiuchi.
			50,97					18 . 36 . 52,26		Saturn's center.
			} 3,55					19 . 0 . 37,38		Jupiter's center.
								19 . 43 . 8,50	- 3,99	α Aquilæ.
			48,66					19 . 47 . 37,18	- 4,02	β Aquilæ.
			19,75	8,47	48,72			20 . 9 . 21,50	- 4,49	α ² Capricorni.
			48,42	37,17	48,75					
			32,73	21,51	48,78					
			} 8,50	59,08	50,58	1,13	50,30	5 . 6 . 59,04	- 2,19	Rigel.
				21,40	50,46			5 . 16 . 21,49	- 2,91	β Tauri.
				39,53	50,48			5 . 46 . 39,62	- 2,34	α Orionis.
				13,55	50,96			18 . 23 . 13,19	+ 3,27	δ Ursæ Min. SP.
			22,59					6 . 38 . 12,97	- 1,53	Sirius.
			22,36							
			} 22,35					9 . 38 . 13,10		☉'s center.
								15 . 28 . 2,61	- 2,56	α Coronæ Borealis.
			11,58	2,55	50,97			15 . 36 . 32,41	- 2,95	α Serpentis.
			41,38	32,34	50,96			16 . 6 . 7,42	- 3,28	δ Ophiuchi.
			16,36	7,69	51,33			16 . 19 . 47,61	- 3,86	Antares.
			56,54	47,69	51,15			17 . 1 . 23,26	- 3,86	η Ophiuchi.
			32,16					17 . 7 . 30,09	- 3,25	α Herculis.
			38,98	29,98	51,00			17 . 12 . 22,89	- 4,19	θ Ophiuchi.
			31,78							

Aug. 16. 6^h, the Transit was levelled, and the result was the same as by the last levelling.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Aug. 15	1 L.	52,4	8,2	23,3	39,0	54,5	9,8	17.31.25,5		17.30.38,96	C.
	γ^2 Sagittarii	6,2	21,8	37,4	53,1	8,8	24,2	17.55.40,0		17.54.53,07	C.
	μ^1 Sagittarii	49,0	3,4	17,6	32,3	46,7	1,1	18.4.15,5		18.3.32,23	C.
	δ Ursæ Minoris...	11.8,8	14.55,6	18.39,7	22.30,4	26.17,0	30.2,0	18.33.39,7		18.22.29,03	G.
	Jupiter 1 L.	20,9		50,2		19,6		18.59.48,9	+ 0,02	18.59.4,92	C.
	Jupiter 2 L.		39,1		8,4		37,4	18.59.	- 0,03	18.59.8,27	C.
	(a) β Tauri					45,4	0,5	5.16.15,9	- 30,63	5.15.29,97	C.
	(b) α Orionis	7,3	21,0	34,2	48,0	1,5	15,1	5.46.28,7		5.45.47,97	C.
	(c) Sirius	39,0	53,2	6,8	21,2	35,1	49,2	6.38.3,2		6.37.21,10	C.
Aug. 16	1 L.		32,7	46,5	0,8	14,5	28,4	9.40.42,4	- 6,94	9.40.0,61	C.
	2 L.	29,4	43,4	57,2	11,3	25,2	39,1	9.42.53,0		9.42.11,22	C.
	(d) Arcturus	54,9	9,2	23,3	37,9	52,3	6,4	14.8.20,8		14.7.37,83	C.
	(e) α Coronæ Borealis.	25,1	40,5	55,4	10,7	26,1	41,1	15.27.56,2		15.27.10,73	C.
	α Serpentis	59,7	13,4	26,6	40,5	54,1	7,5	15.36.21,1		15.35.40,41	C.
	δ Ophiuchi		48,5	1,8	15,5	29,2	42,5	16.5.56,1	- 6,74	16.5.15,53	C.
	Antares	10,4	25,5	40,4	55,5	10,6	25,4	16.19.40,3		16.18.55,45	C.
	α Ophiuchi	6,2	20,2	33,6	47,6	1,5	15,2	17.27.29,1		17.26.47,63	C.
	γ^2 Sagittarii	5,1	20,9	36,1	52,1	7,6	23,0	17.55.38,7		17.54.51,93	C.
	(f) μ^1 Sagittarii	47,8	2,3				0,2	18.4.14,4	- 0,01	18.3.31,16	C.
	1 L.	50,8	6,2	20,9	36,7	52,2	7,3	18.28.22,7		18.27.36,69	C.
	(g) Saturn 1 L.	41,8		11,0		40,5		18.36.9,6	+ 0,02	18.35.25,74	C.
	Saturn 2 L.		59,4		28,7		57,6	18.35.	- 0,03	18.35.28,54	C.
	σ Sagittarii	55,4	10,3	25,1	40,5	55,5	10,5	18.45.25,6		18.44.40,41	C.
	(h) π Sagittarii	50,8	5,3	19,6	34,2	48,8	3,0	19.0.17,6		18.59.34,18	C.
	(i) δ Ursæ Minoris SP.		14.39,4		22.13,0	26.2,5		6.	+ 1.14,93	6.22.13,23	C.
	Castor	52,7	8,8	24,4	40,5	56,4	12,1	7.24.28,2		7.23.40,44	C.
	(k) Procyon	30,4	43,8	57,2	11,0	24,6	37,8	7.30.51,5		7.30.10,90	C.
	(k) Pollux	2,1	17,5	32,6	48,2	3,6	18,8	7.35.34,2		7.34.48,15	C.
Aug. 17	1 L.	2,4	15,8	30,0	44,1	57,8	11,7	9.44.25,5		9.43.43,90	C.
	2 L.	12,6	26,6	40,4	54,4	8,5	22,3	9.46.36,0		9.45.54,40	C.
	(f) Polaris SP. M. ...	0.2,5	0.46,0	1.26,9	2.8,8	2.52,5	3.34,7	13.4.18,6	+ 1,42	13.2.11,42	C.
	Arcturus	53,8	8,2	22,3	37,0	51,1	5,5	14.8.19,7		14.7.36,80	C.
	α Serpentis	58,4	12,4	25,5	39,5	53,0	6,5	15.36.20,0		15.35.39,33	C.
	Saturn 1 L.	30,7		59,7		29,1		18.35.58,4	+ 0,02	18.35.14,49	C.
	Saturn 2 L.		48,2		17,5		46,5	18.35.	- 0,03	18.35.17,37	C.
	σ Sagittarii	54,2	9,5	24,1	39,3	54,4	9,3	18.45.24,5		18.44.39,33	C.
	(m) Jupiter 1 L.	41,8		11,1		40,5		18.59.9,6	+ 0,02	18.58.25,77	C.
	Jupiter 2 L.		0,0		29,2		58,5	18.58.	- 0,03	18.58.29,20	C.
	1 L.	16,5	31,5	46,4	1,5	16,6	31,5	19.22.46,6		19.22.1,51	C.
	e^2 Sagittarii	57,6	11,8	25,6	39,9	54,0	8,0	19.33.22,1		19.32.39,86	C.
	(n) γ Aquilæ	14,6	28,5	41,5	55,8	9,5	23,2	19.38.36,3		19.37.55,61	C.
	57 Sagittarii	29,2	43,5	57,5	12,0	26,4	40,5	19.42.54,7		19.42.11,97	C.
	β Aquilæ	3,4	17,0	30,5	43,9	57,5	11,1	19.47.24,6		19.46.44,00	C.
	α^2 Capricorni	46,6	0,5	14,2	28,2	42,0	55,9	20.9.9,7		20.8.28,16	C.
	Castor	52,0	7,7	23,5	39,7	55,5	11,2	7.24.27,2		7.23.39,55	C.
	Procyon	29,3	42,8	56,2	10,0	23,5	37,1	7.30.50,5		7.30.9,91	C.
	(b) Pollux	1,2	16,6	31,6	47,3	2,6	17,7	7.35.33,2		7.34.47,17	C.
Aug. 18	(o) 1 L.	45,2	59,4	12,7	26,8	40,8	54,4	9.48.8,5		9.47.26,83	C.
	2 L.	55,5	9,4	23,0	37,2	51,1	4,7	9.50.18,7		9.49.37,09	C.
	(p) Polaris SP. M. ...	0.3,0	0.46,2	1.27,0	2.9,5	2.50,4	3.33,6	13.4.17,5	+ 1,42	13.2.11,02	C.
	Arcturus	52,8	7,4	21,3	36,0	50,1	4,5	14.8.18,7		14.7.35,83	C.
	e^2 Sagittarii	56,8	10,7	24,5	39,1	53,0	6,9	19.33.20,8		19.32.38,83	C.
	(q) β Aquilæ	2,6	16,0	29,3	43,1	56,5		19.47.23,5	+ 4,51	19.46.43,01	C.
Aug. 19	(r) ν Capricorni	29,5	43,6	57,6	12,2	26,4	40,4	20.30.54,6		20.30.12,04	C.
	μ Aquarii	35,7	49,2	2,9	16,7	30,5	43,9	20.43.57,5		20.43.16,63	C.
	(s) 1 L.	25,5	39,8	53,8	8,5	22,7	36,9	21.2.51,2		21.2.8,35	C.
	ι Capricorni	53,3	7,5	21,3	35,6	49,7	3,7	21.13.17,9		21.12.35,57	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Seen late. (b) Very unsteady. (c) Very great unsteadiness. (d) Vibrating. (e) Wire VI was set down 40,1. (f) Interrupted by the noise of a cart passing. (g) Confused. Wire IV was set down 29,7. (h) Cloudy at wire VII. (i) All guess and doubt, so faint. (k) Very unsteady: the last the best. (l) Reading of coincidence with D, 24,166. (m) Good. (n) Flaring. (o) The second limb better than the other: in observing the latter the wires were almost invisible from the great quantity of diffused light. Wire VII of 2 L was set down 19,7. (p) Coincidence reading 24,169. The counting of wire II was 1^s short, which has been added. (q) Very cloudy. (r) Irregular motion. (s) Pretty steady.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,16	+ 2,33	39,01 53,14 32,24 22,03 5,63 29,63 47,79 21,08 5,70 37,57 10,40 40,24 15,32 55,49 47,42 52,00 31,17 36,74 27,17 40,45 34,19 20,06 40,07 10,73 47,81 48,94 26,78 36,54 39,16 15,96 39,37 27,52 1,54 39,84 55,42 11,97 43,83 28,11 39,18 9,74 46,83 31,75 26,38 35,57 38,81 42,84 12,04 16,56 8,32 35,56	13,37 21,43 39,56 29,77 2,53 32,33 7,67 47,67 39,51 12,82 33,14 3,65 40,73 20,56 29,76 32,31 21,16 29,74 37,16	51,34 51,80 51,77 52,20 52,13 52,09 52,35 52,18 52,09 52,76 53,07 52,92 52,92 53,78 53,22 53,15 53,33 53,41 53,98 53,93 53,93 54,78 54,17 54,32	1,13 1,12 1,04 1,04 0,92	50,30 51,46 52,58 53,58 54,86	17. 31. 30,13 17. 55. 44,28 18. 4. 23,39 18. 23. 13,20 18. 59. 57,82 5. 16. 21,34 5. 46. 39,52 6. 38. 12,85 9. 41. 57,61 14. 8. 29,69 15. 28. 2,58 15. 36. 32,43 16. 6. 7,53 16. 19. 47,71 17. 27. 39,69 17. 55. 44,30 18. 4. 23,47 18. 28. 29,06 18. 36. 19,50 18. 45. 32,78 19. 0. 26,53 18. 23. 12,92 7. 24. 32,97 7. 31. 3,64 7. 35. 40,72 9. 45. 41,94 1. 3. 19,92 14. 8. 29,73 15. 36. 32,42 18. 36. 9,35 18. 45. 32,76 18. 59. 20,92 19. 22. 54,96 19. 33. 33,27 19. 38. 48,85 19. 43. 5,40 19. 47. 37,27 20. 9. 21,56 7. 24. 33,06 7. 31. 3,65 7. 35. 40,74 9. 49. 25,75 1. 3. 20,52 14. 8. 29,76 19. 33. 33,24 19. 47. 37,28 20. 31. 7,69 20. 44. 12,21 21. 3. 3,98 21. 13. 31,23	- 4,64 - 4,36 + 3,45 - 2,94 - 2,37 - 1,55 - 2,30 - 2,54 - 2,93 - 3,26 - 3,84 - 3,37 - 4,64 - 4,35 - 4,73 - 4,59 + 4,00 - 2,49 - 1,94 - 2,34 - 37,05 - 2,29 - 2,92 - 4,72 - 4,54 - 3,91 - 4,63 - 4,01 - 4,50 - 2,51 - 1,96 - 2,37 - 37,65 - 2,27 - 4,54 - 4,01 - 4,69 - 4,44 - 4,65	» 1 L. γ ² Sagittarii. μ ¹ Sagittarii. δ Ursæ Minoris. Jupiter's center. β Tauri. α Orionis. Sirius. ☉'s center. Arcturus. α Coronæ Borealis. α Serpentis. δ Ophiuchi. Antares. α Ophiuchi. γ ² Sagittarii. μ ¹ Sagittarii. » 1 L. Saturn's center. σ Sagittarii. π Sagittarii. δ Ursæ Min. SP. Castor. Procyon. Pollux. ☉'s center. Polaris SP. M. Arcturus. α Serpentis. Saturn's center. σ Sagittarii. Jupiter's center. » 1 L. e ² Sagittarii. γ Aquilæ. 57 Sagittarii. β Aquilæ. α ² Capricorni. Castor. Procyon. Pollux. ☉'s center. Polaris SP. M. Arcturus. e ² Sagittarii. β Aquilæ. ν Capricorni. μ Aquarii. » 1 L. ι Capricorni.*

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Aug. 19	β Aquarii.....	42,6	56,1	9,4	23,2	36,6	50,2	21. 23. 3,6		21. 22. 23,10	C.
	α Aquarii.....	8,5	22,0	35,2	48,7	2,3	15,6	21. 57. 29,2		21. 56. 48,79	C.
Aug. 20	(a) \odot 1 L.....	9,5	23,2	36,9	51,0	5,1	18,2	9. 55. 32,1		9. 54. 50,85	G.
	δ Ursæ Minoris....				22,24,0	26,11,0	29,56,0	18.....	- 3. 47,34	18. 22. 22,99	C.
	51 (Hev.) Cep. SP.			18,49,5	23,33,4	28,18,6		18.....	- 0,21	18. 23. 33,62	C.
	(b) Jupiter 1 L.....	48,7		17,8		47,5		18. 58. 16,4	+ 0,02	18. 57. 32,62	C.
	Jupiter 2 L.....		6,4		35,8		4,9	18. 58.....	- 0,03	18. 57. 35,67	C.
	(c) γ Aquilæ.....	11,2	25,3	38,9	52,7	6,4	19,8	19. 38. 33,5		19. 37. 52,54	C.
	(c) α Aquilæ.....			58,2	12,3	26,0	39,5	19. 42. 52,9	- 13,60	19. 42. 12,18	C.
	β Aquilæ.....	0,2	13,8	27,3	41,0	54,6	8,0	19. 47. 21,6		19. 46. 40,93	C.
	α^2 Capricorni.....	43,6	57,5	11,0	25,3	39,0	52,6	20. 9. 6,6		20. 8. 25,09	C.
	(d) ϵ Capricorni.....	52,3	6,3	20,2	34,6	48,5	2,5	21. 13. 17,0		21. 12. 34,49	C.
	β Aquarii.....	41,5	55,2	8,5	22,2	35,9	49,3	21. 23. 3,0		21. 22. 22,23	C.
	(e) 1 L.....	45,4	59,4	12,9	27,4	41,3	55,2	21. 49. 9,3		21. 48. 27,27	C.
	(e) 2 L.....	48,5	2,5	16,4	30,5	44,6	58,4	21. 51. 12,6		21. 50. 30,50	C.
	(f) α Aquarii.....	7,5	21,1	34,3	48,0	1,6	15,0	21. 57. 28,4		21. 56. 47,99	C.
	θ Aquarii.....	56,6	10,2	23,7	37,6	51,2	4,9	22. 8. 18,3		22. 7. 37,50	C.
	(g) ζ Aquarii. f.....	9,2	22,8	36,0	49,8	3,2	16,7	22. 20. 30,1		22. 19. 49,69	C.
Aug. 22	(h) \odot 1 L.....	31,7	45,6	59,3	13,4	27,2	40,4	10. 2. 54,3		10. 2. 13,13	C.
	\odot 2 L.....	41,5	55,2	9,0	23,0	36,8	50,5	10. 5. 4,4		10. 4. 22,91	C.
	(i) Polaris SP. M.	59,58,0	0,42,5	1,25,7	2. 7,4	2,50,5	3,33,6	13. 4. 16,3	+ 1,42	13. 2. 9,13	C.
	β Aquilæ.....	58,5	12,2	25,6	39,3	52,8	6,2	19. 47. 19,8		19. 46. 39,20	C.
	(g) α^2 Capricorni.....	42,1	55,7	9,5	23,6	37,3	51,0	20. 9. 4,7		20. 8. 23,41	C.
	β Piscium.....	15,9	29,4	42,6	56,5	10,0	23,4	22. 55. 36,7		22. 54. 56,36	C.
	(k) 2 L.....	23,8	37,5	51,0	5,0	18,8	32,5	23. 19. 46,2		23. 19. 4,97	C.
	ϵ Piscium.....	15,1	28,7	42,0	55,6	9,1	22,6	23. 31. 36,2		23. 30. 55,61	C.
	ω Piscium.....	37,5	51,0	4,3	18,1	31,4	45,0	23. 50. 58,6		23. 50. 17,99	C.
	(g) α Andromedæ.....	34,2	49,5		20,1	35,6	50,6	0. 0. 6,1	- 2,57	23. 59. 20,11	C.
	(l) Castor.....	46,6	3,0	18,5	34,8	50,6	6,3	7. 24. 22,5		7. 23. 34,61	C.
	(m) Procyon.....	24,6	38,3	51,4	5,2	18,7	32,2	7. 30. 45,8		7. 30. 5,17	C.
	Pollux.....	56,4	11,9	27,0	42,4	57,8	13,1	7. 35. 28,4		7. 34. 42,43	C.
Aug. 23	(n) \odot 1 L.....	11,7	26,3	39,5	53,4	7,4	20,9	10. 6. 34,7		10. 5. 53,41	C.
	\odot 2 L.....	22,0	35,7	49,3	3,2	17,0	30,8	10. 8. 44,5		10. 8. 3,21	C.
	Antares.....	3,4	18,4	33,3	48,5	3,4	18,3	16. 19. 33,5		16. 18. 48,40	C.
	Saturn 1 L.....	30,8		59,8		29,4		18. 34. 58,4	+ 0,02	18. 34. 14,62	C.
	Saturn 2 L.....		48,4		17,5		46,7	18. 34.....	- 0,03	18. 34. 17,50	C.
	Jupiter 1 L.....	2,6		31,7		1,5		18. 57. 30,5	+ 0,02	18. 56. 46,59	C.
	Jupiter 2 L.....		20,6		50,1		19,2	18. 57.....	- 0,03	18. 56. 49,94	C.
	(o) α Aquarii.....					59,0	12,3	21. 57. 25,6	- 26,94	21. 56. 45,36	C.
	α Pegasi.....	17,2	31,3	44,8	59,0	12,7	26,6	22. 56. 40,5		22. 55. 58,88	C.
	ϵ Piscium.....	14,2	27,6	40,9	54,6	8,2	21,6	23. 31. 35,1		23. 30. 54,60	C.
	Uranus.....	48,2	1,7	15,1	28,8	42,2	55,5	23. 51. 9,1		23. 50. 28,66	C.
	(p) 2 L.....	26,0	40,0	53,4	7,4	21,2	34,9	0. 3. 48,8		0. 3. 7,39	C.
	(p) δ Piscium.....	52,4	6,2	19,6	33,4	47,1	0,4	0. 12. 14,0		0. 11. 33,30	C.
	(q) β Ceti.....	1,4	15,6	29,6	44,2	58,3	12,5	0. 35. 26,8		0. 34. 44,06	C.
	δ Piscium.....	53,6	7,2	20,6	34,4	48,1	1,5	0. 40. 15,1		0. 39. 34,36	C.
	(r) Polaris M.....	0,34,4	1,16,6	1,59,4	2,43,2	3,25,0	4. 6,7	1.....	+ 19,88	1. 2. 40,76	C.
	(s) Procyon.....	23,7		50,8		18,1	31,3	7. 30. 44,9	- 5,39	7. 30. 4,37	B.
	(s) Pollux.....	55,2	10,8	25,8	41,2	56,9	12,1	7. 35. 27,2		7. 34. 41,31	B.
Aug. 24	(t) Saturn 1 L.....	21,9		51,1		20,3		18. 34. 49,7	+ 0,02	18. 34. 5,77	B.
	Saturn 2 L.....		39,9		9,2		38,3	18. 34.....	- 0,03	18. 34. 9,10	B.
	Σ 2404.....	42,1	55,6	9,4	23,1	37,1	50,7	18. 43. 4,4		18. 42. 23,20	B.
	(g) α Aquilæ.....	27,3	41,1	54,4	8,3	22,0	35,4	19. 42. 49,0		19. 42. 8,22	B.
	β Aquarii.....	37,8	51,2	4,9	18,3	32,1	45,5	21. 22. 58,9		21. 22. 18,39	B.
	α Aquarii.....	3,7	17,3	30,6	44,0	57,7	11,1	21. 57. 24,3		21. 56. 44,10	B.
	(g) α Pegasi.....	15,9	30,2	43,7	58,1	12,1	25,1	22. 56. 39,2		22. 55. 57,76	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Clouds came over: wires IV and V without the dark glass. (b) Hazy and indistinct. Wire IV was written confusedly 36,8. (c) Hurried: the next star better. (d) Faint from mist. (e) Steady. 2 L appeared very rough. Correction applied to apparent R.A. of 2 L for defect of illumination = 0^s.04. (f) Bad lamp-light. (g) Cloudy. (h) Before this observation I cleaned the dark glasses and replaced one, which was broken, by another of the same opacity nearly. The diffusion of stray light is now in some degree corrected. (i) Coincidence reading 24^s.169. (k) Good. (l) Faint and unsteady. (m) Great vibration. The next star was steadier. (n) Great waving. Wires I and 11 of 1 L were taken hurriedly, the eye-glass having been put out of adjustment. The counting for this limb was found to be 1^s in advance of the clock. (o) Accidentally delayed. (p) Very irregular motion. (q) Flaring. (r) Wire VII was omitted inadvertently. The correction of the mean of the observed wires to D is + 21^s.30, the interval between consecutive wires being 42^s.6 as derived from the observations on Aug. 16, 17, 22, and 23. (s) Interrupted by noise of workmen. (t) Hazy.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,16	+ 2,33	23,02	18,70	55,68	0,92	54,86			β Aquarii.
			48,67	44,36	55,69					α Aquarii.
			50,64			0,83	55,76	9. 55. 46,74		\odot 1 L.
			15,99	11,56	55,57			18. 23. 12,39	+ 5,26	δ Ursæ Minoris.
			42,03	40,20	58,17			18. 24. 38,43	- 13,23	51 (Hev.) Cep.SP.
			34,18					18. 58. 30,60		Jupiter's center.
			52,35					19. 38. 48,79	- 3,88	γ Aquilæ.
			12,00	8,44	56,44			19. 43. 8,44	- 3,96	α Aquilæ.
			40,76	37,15	56,39			19. 47. 37,20	- 4,00	β Aquilæ.
			25,04	21,52	56,48			20. 9. 21,50	- 4,50	α^2 Capricorni.
			34,48					21. 13. 30,97	- 4,66	ι Capricorni.
			22,15	18,70	56,55			21. 23. 18,65	- 4,40	β Aquarii.
			27,21					21. 49. 23,72		η 1 L.
			30,44					21. 51. 26,95		η 2 L.
			47,87	44,37	56,50			21. 57. 44,39	- 4,30	α Aquarii.
			37,43					22. 8. 33,96	- 4,42	θ Aquarii.
			49,57					22. 20. 46,10	- 4,27	ζ Aquarii.f.
	- 5,32	+ 2,56	17,81			1,01	57,29	10. 4. 15,53		\odot 's center.
			25,16	23,33	58,17			1. 3. 23,00	- 39,82	Polaris SP. M.
			39,03	37,14	58,11			19. 47. 37,15	- 3,99	β Aquilæ.
			23,38	21,51	58,13			20. 9. 21,52	- 4,49	α^2 Capricorni.
			56,22					22. 55. 54,47	- 4,21	β Piscium.
			4,85					23. 20. 3,12		η 2 L.
			55,46					23. 31. 53,74	- 4,15	ι Piscium.
			17,82					23. 51. 16,11	- 4,10	ω Piscium.
			19,77	18,10	58,33			0. 0. 18,07	- 4,12	α Andromedæ.
			34,24	33,29	59,05	1,04	58,39	7. 24. 32,95	- 2,64	Castor.
			5,02	3,78	58,76			7. 31. 3,74	- 2,07	Procyon.
			42,09	40,88	58,79			7. 35. 40,81	- 2,49	Pollux.
			58,10					10. 7. 56,93		\odot 's center.
			48,46	47,56	59,10			16. 19. 47,56	- 3,73	Antares.
			16,10					18. 35. 15,30		Saturn's center.
			48,31					18. 57. 47,52		Jupiter's center.
			45,25	44,38	59,13			21. 57. 44,59	- 4,31	α Aquarii.
			58,66	57,84	59,18			22. 56. 58,04	- 4,13	α Pegasi.
			54,45					23. 31. 53,86	- 4,15	ι Piscium.
			28,55					23. 51. 27,97		Uranus.
			7,24				59,43	0. 4. 6,67		η 2 L.
			33,12					0. 12. 32,56	- 4,07	d Piscium.
			44,07					0. 35. 43,53	- 4,05	β Ceti.
			34,18					0. 40. 33,64	- 3,98	δ Piscium.
			24,58	24,17	59,59			1. 3. 24,05	- 40,66	Polaris M.
			4,22	3,80	59,58	0,85	59,57	7. 31. 4,06	- 2,09	Procyon.
			40,97	40,90	59,93			7. 35. 40,81	- 2,51	Pollux.
			7,47					18. 35. 7,70		Saturn's center.
			23,01					18. 43. 23,24	- 3,64	Σ 2404.
			8,04	8,41	60,37			19. 43. 8,31	- 3,93	α Aquilæ.
			18,31	18,71	60,40			21. 23. 18,64	- 4,41	β Aquarii.
			43,99	44,39	60,40			21. 57. 44,34	- 4,32	α Aquarii.
			57,54	57,86	60,32			22. 56. 57,92	- 4,15	α Pegasi.

Aug. 23. 6^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Aug. 26	(a) \odot 1 L.....	11,1	24,5	38,2	52,1	6,1	20,0	10.17.33,4		10.16.52,20	B.
	\odot 2 L.....	21,0	34,3	48,1	2,1	16,0	29,9	10.19.....	+ 6,86	10.19.2,09	B.
	59 Serpentis.....	29,0	43,0	56,1	9,7	23,1	36,4	18.18.50,1		18.18.9,63	B.
	Σ 2339.....	6,1	20,3	34,2	48,7	3,0	16,9	18.26.31,0		18.25.48,60	B.
	Saturn 1 L.....	5,9	.....	34,8	.....	4,9	.....	18.34.33,2	+ 0,02	18.33.49,72	B.
	Saturn 2 L.....	.....	23,8	.....	53,1	.....	22,1	18.34.....	- 0,03	18.33.52,97	B.
	(b) * N.P.D. 79°. 33'.	53,8	8,1	21,3	35,8	49,2	3,0	18.42.16,2		18.41.35,34	B.
	Jupiter 1 L.....	23,1	.....	53,0	.....	22,0	.....	18.56.51,2	+ 0,02	18.56.7,34	B.
	Jupiter 2 L.....	.....	41,6	.....	10,7	.....	40,1	18.56.....	- 0,03	18.56.10,77	B.
	α Pegasi.....	14,3	28,0	42,0	56,1	10,1	24,1	22.56.37,6		22.55.56,03	B.
	Uranus.....	22,7	36,1	49,9	3,1	16,7	30,2	23.51.43,4		23.51.3,16	B.
	α Andromedæ....	30,6	45,5	0,9	16,1	31,7	46,9	0.0.2,2		23.59.16,27	B.
Aug. 29	(a) α Herculis.....	.....	.....	11,1	24,9	39,1	53,0	17.7.7,1	- 13,90	17.6.25,14	B.
	α Ophiuchi.....	53,1	7,1	20,7	35,1	49,1	2,4	17.27.16,2		17.26.34,81	B.
	(a) Σ 2278.....	.....	.....	.....	4,5	28,9	52,9	18.0.17,1	- 36,56	17.59.4,29	B.
	(a) δ Ursæ Minoris...	10.50,4	14.37,5	18.21,3	22.12,6	26.0,2	29.44,8	18.....	+ 1.53,39	18.22.11,19	B.
	(a) Σ 2402.....	.....	.....	3,1	17,1	30,3	44,0	18.41.57,7	- 13,68	18.41.16,76	B.
	Σ 2415.....	0,2	14,6	28,8	43,2	57,7	12,2	18.47.26,2		18.46.43,27	B.
	(c) α Aquilæ.....	22,9	36,4	50,2	4,0	17,4	31,1	19.42.44,3		19.42.3,76	B.
	(a) β Aquilæ.....	52,1	5,4	18,8	32,2	46,1	59,4	19.47.13,2		19.46.32,45	B.
	Σ 2609.....	0,3	17,2	34,1	51,2	8,4	25,2	19.52.42,2		19.51.51,23	B.
	(d) Σ 2626.....	.....	.....	39,2	55,2	11,1	26,1	19.57.42,0	- 15,55	19.56.55,17	B.
	Σ 2635.....	47,3	1,1	14,3	28,0	41,9	55,2	20.2.9,1		20.1.28,13	B.
	Σ 2666.....	37,1	54,9	11,9	30,1	47,8	5,1	20.12.26,0		20.11.30,42	B.
	Σ 2681. <i>nf</i>	26,2	48,1	10,4	33,1	55,4	18,0	20.18.40,1		20.17.33,04	B.
	Σ 2695.....	26,9	42,0	56,7	12,1	26,7	41,6	20.24.56,2		20.24.11,74	B.
	β Aquarii.....	33,1	46,8	0,1	13,9	27,3	41,1	21.22.54,3		21.22.13,80	B.
	(e) Σ 2861.....	51,1	5,2	18,9	34,0	48,3	2,8	21.58.17,0		21.57.33,90	B.
Aug. 30	(f) Σ 2943.....	35,9	50,3	4,2	18,2	31,7	45,3	22.38.59,2		22.38.17,83	B.
	(g) α Pegasi.....	10,5	24,9	38,2	52,3	6,1	20,0	22.56.34,1		22.55.52,30	B.
	η Geminorum.....	33,9	48,7	2,9	17,7	32,2	46,8	6.5.1,4		6.4.17,66	B.
	(h) δ 2 L.....	44,2	59,1	13,7	28,5	42,9	57,7	6.19.12,2		6.18.28,33	B.
	(i) δ Ursæ Min. SP..	10.33,4	14.19,6	.....	21.52,6	25.42,4	.....	6.....	+ 3.46,31	6.21.53,31	B.
	ϵ Geminorum.....	24,8	40,2	54,7	9,5	24,5	39,2	6.33.54,7		6.33.9,66	B.
	ζ Geminorum.....	57,9	12,3	26,1	41,1	55,4	9,9	6.54.24,1		6.53.40,97	B.
	Procyon.....	17,3	31,1	44,0	57,9	11,7	25,1	7.30.38,5		7.29.57,95	B.
	Pollux.....	49,1	4,6	20,0	35,1	50,5	5,7	7.35.21,1		7.34.35,16	B.
	(k) Regulus.....	11,8	25,9	39,2	53,1	7,1	20,6	9.59.34,3		9.58.53,14	B.
Aug. 31	(a) δ Ursæ Minoris...	10.49,5	14.37,8	18.20,2	22.11,4	25.58,2	29.42,8	18.....	+ 1.53,40	18.22.10,05	B.
	(b) Σ 2402.....	.....	47,1	1,2	14,1	27,8	.....	18.41.56,1	- 2,74	18.41.14,52	B.
	(i) Σ 2415.....	58,2	13,1	27,1	41,8	56,2	10,1	18.47.24,2		18.46.41,53	B.
	α Aquilæ.....	21,1	35,1	48,2	2,1	16,1	29,3	19.42.43,0		19.42.2,13	B.
	β Aquilæ.....	50,1	3,7	17,1	30,9	44,2	57,9	19.47.11,6		19.46.30,78	B.
Sept. 2	(m) \odot 1 L.....	36,5	50,1	3,7	17,7	31,3	45,0	10.42.58,4		10.42.17,53	B.
	\odot 2 L.....	45,8	59,3	12,9	27,0	40,4	54,0	10.45.8,0		10.44.26,77	B.
	α Herculis.....	40,1	54,1	7,8	22,0	35,9	49,8	17.8.3,6		17.7.21,90	B.
	α Ophiuchi.....	50,1	4,1	17,7	31,9	45,3	59,1	17.28.13,1		17.27.31,61	B.
	Piazzi xvii.300. <i>np</i> ..	41,3	56,0	9,8	24,1	38,2	52,4	17.50.7,0		17.49.24,11	B.
	70 Ophiuchi. <i>np</i> ...	43,6	57,2	10,3	24,1	37,4	51,1	17.58.4,3		17.57.24,00	B.
	59 Serpentis.....	22,9	36,7	50,3	3,9	17,1	30,2	18.19.44,0		18.19.3,56	B.
	Σ 2339.....	59,9	14,1	28,0	42,2	56,6	11,1	18.27.24,8		18.26.42,38	B.
	Saturn 1 L.....	22,1	.....	51,4	.....	20,9	.....	18.34.49,8	+ 0,02	18.34.6,07	B.
	Saturn 2 L.....	.....	40,3	.....	9,6	.....	38,7	18.34.....	- 0,03	18.34.9,50	B.
	Σ 2404.....	34,7	48,1	1,5	15,7	29,2	43,0	18.43.56,6		18.43.15,54	B.
	Σ 2415.....	56,7	11,2	25,3	40,0	54,1	8,9	18.48.23,2		18.47.39,91	B.
	Jupiter 1 L.....	19,7	.....	48,9	.....	18,8	.....	18.56.48,0	+ 0,02	18.56.3,87	B.
	Jupiter 2 L.....	.....	38,2	.....	7,5	.....	36,7	18.56.....	- 0,03	18.56.7,44	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

- (a) Cloudy. (b) Confused: mistaken for Σ 2402. (h) Hurried. (i) Very faint.
 (c) Blazing. (d) Very faint from clouds. (k) Faint and unsteady.
 (e) Misty. (f) Hazy. This star appears to be τ^1 Aquarii. (l) Extremely faint. The intervals are discordant.
 (g) Cloudy. Grouped with the following clock-stars. (m) Great unsteadiness.

Error of Collima- tion.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock ap- parently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.			
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.				
- 0,60	- 5,32	+ 3,78	57,00			0,89	61,24	10 . 18 . 58,62		☉'s center.			
			9,57					18 . 19 . 11,49	- 3,75	59 Serpentis.			
			48,40					18 . 26 . 50,32	- 3,40	Σ 2339.			
			51,46					18 . 34 . 53,39		Saturn's center.			
			35,20					18 . 42 . 37,13	- 3,62	* N.P.D. 79°. 33'.			
			9,17					18 . 57 . 11,11		Jupiter's center.			
			55,86	57,88	62,02					α Pegasi.			
			3,12					23 . 51 . 5,25		Uranus.			
			15,97	18,17	62,20					α Andromedæ.			
	- 5,65		24,95	29,76	64,81	0,88	64,09	17 . 7 . 29,67	- 3,03	α Herculis.			
			34,64	39,31	64,67			17 . 27 . 39,37	- 3,17	α Ophiuchi.			
			3,51					18 . 0 . 8,26	- 2,05	Σ 2278.			
			2,82	8,39	65,57			18 . 23 . 7,58	+ 8,43	δ Ursæ Minoris.			
			16,60					18 . 42 . 21,38	- 3,58	Σ 2402.			
			43,03					18 . 47 . 47,81	- 3,39	Σ 2415.			
			3,62	8,38	64,76			19 . 43 . 8,43	- 3,90	α Aquilæ.			
			32,32	37,09	64,77			19 . 47 . 37,14	- 3,94	β Aquilæ.			
			50,80					19 . 52 . 55,62	- 3,37	Σ 2609.			
			54,83					19 . 57 . 59,65	- 3,53	Σ 2626.			
			28,00					20 . 2 . 32,82	- 3,96	Σ 2635.			
			29,96					20 . 12 . 34,79	- 3,44	Σ 2666.			
			32,35					20 . 18 . 37,18	- 3,27	Σ 2681. <i>nf</i> .			
			11,46					20 . 25 . 16,30	- 3,74	Σ 2695.			
			13,78	18,72	64,94			21 . 23 . 18,65	- 4,42	β Aquarii.			
			33,66					21 . 58 . 38,56	- 4,10	Σ 2861.			
			17,88			0,82	65,00	22 . 39 . 23,65	- 4,56	Σ 2943.			
			52,12	57,92	65,80			22 . 56 . 57,90	- 4,21	α Pegasi.			
			17,40					6 . 5 . 23,43	- 3,04	η Geminorum.			
			28,05					6 . 19 . 34,09		γ 2 L.			
			1,62	7,77	66,15			18 . 23 . 7,66	+ 9,05	δ Ursæ Min. SP.			
			9,38					6 . 34 . 15,43	- 2,96	ε Geminorum.			
			40,73					6 . 54 . 46,79	- 2,75	ζ Geminorum.			
			57,84	3,96	66,12			7 . 31 . 3,92	- 2,25	Procyon.			
			34,82	41,08	66,26			7 . 35 . 40,90	- 2,69	Pollux.			
			52,97	59,10	66,13			9 . 59 . 59,13	- 1,99	Regulus.			
			1,68	7,56	65,88			18 . 23 . 8,13	+ 9,26	δ Ursæ Minoris.			
			14,36					18 . 42 . 20,82	- 3,55	Σ 2402.			
			41,29					18 . 47 . 47,75	- 3,36	Σ 2415.			
			1,99	8,36	66,37			19 . 43 . 8,48	- 3,88	α Aquilæ.			
			30,65	37,07	66,42			19 . 47 . 37,14	- 3,92	β Aquilæ.			
					22,02			0,97	67,22	10 . 44 . 29,67		☉'s center.	
					21,71	29,69	7,98			17 . 7 . 29,62	- 2,96	α Herculis.	
					31,44	39,24	7,80			17 . 27 . 39,37	- 3,10	α Ophiuchi.	
					23,89					17 . 49 . 31,83	- 3,09	Piazzixvii. 300. <i>nf</i> .	
					23,90					17 . 57 . 31,85	- 3,48	70 Ophiuchi. <i>np</i> .	
					3,49					18 . 19 . 11,45	- 3,65	59 Serpentis.	
					42,16					18 . 26 . 50,12	- 3,29	Σ 2339.	
					7,90					18 . 34 . 15,87		Saturn's center.	
					15,38					18 . 43 . 23,36	- 3,53	Σ 2404.	
					39,67					18 . 47 . 47,65	- 3,33	Σ 2415.	
					5,72					18 . 56 . 13,71		Jupiter's center.	

Aug. 31. 3^h, the Transit was levelled.Sept. 2. 1^h, the clock was put forward 1^m.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Sept. 2	(a) Σ 2486. <i>nf.</i> .....	...	...	34,9	56,1	16,2	37,0	19. 8. 57,9	- 20,73	19. 7. 55,69	B.
	(a) Piazzixix. 149. <i>sp.</i> .....	...	...	38,6	55,2	12,1	29,0	19. 22. 45,2	- 16,66	19. 21. 55,36	B.
	(b) α Aquilæ	19,4	33,3	47,1	0,6	14,2	28,1	19. 43. 41,3		19. 43. 0,57	B.
	β Aquilæ	48,4	2,1	15,5	29,1	43,0	56,2	19. 48. 9,7		19. 47. 29,15	B.
	Σ 2609.	57,1	14,1	31,1	48,2	5,3	22,0	19. 53. 39,1		19. 52. 48,13	B.
	Σ 2619. <i>sp.</i>	17,4	37,1	56,9	17,1	37,0	57,1	19. 57. 16,8		19. 56. 17,06	B.
	Σ 2635.	44,1	58,0	11,2	25,1	38,7	52,1	20. 3. 6,0		20. 2. 25,03	B.
	Σ 2681. <i>nf.</i>	22,4	45,1	7,0	29,7	52,1	14,0	20. 19. 36,4		20. 18. 29,53	B.
	γ Delphini. <i>f.</i>	33,9	48,1	1,7	15,9	30,0	44,1	20. 39. 57,8		20. 39. 15,93	B.
	δ Aquarii	3,1	16,9	30,2	44,1	57,9	11,2	20. 44. 24,2		20. 43. 43,94	B.
	δ Cygni	24,1	43,9	3,1	23,1	43,1	2,3	20. 55. 22,1		20. 54. 23,10	B.
	Σ 2861. <i>nf.</i>	47,9	2,1	15,9	30,8	45,1	59,2	21. 59. 13,6		21. 58. 30,65	B.
	(c) Σ 2943.	33,6	48,1	1,3	16,0	29,8	43,3	22. 39. 57,2		22. 39. 15,61	B.
	α Pegasi	8,1	22,1	36,1	50,0	3,7	18,1	22. 57. 32,0		22. 56. 50,01	B.
	Uranus	19,9	33,7	47,1	0,8	14,1	27,4	23. 50. 41,1		23. 50. 0,58	B.
	α Andromedæ	24,3	39,9	54,0	10,3	25,8	41,1	0. 0. 56,1		0. 0. 10,21	B.
Sept. 3	α Ophiuchi	48,9	2,9	16,7	30,8	44,2	58,1	17. 29. 11,9		17. 28. 30,50	B.
	(d) Piazzixvii. 300. <i>p.</i>	40,1	54,2	8,9	23,1	37,1	51,0	17. 51. 5,4		17. 50. 22,83	B.
	70 Ophiuchi. <i>np.</i> ..	42,1	56,1	9,2	22,8	36,2	50,1	17. 59. 3,2		17. 58. 22,81	B.
	Saturn 1 L.	17,3	...	46,7	...	16,1	...	18. 35. 45,1	+ 0,02	18. 35. 1,32	B.
	Saturn 2 L. ....	...	35,5	...	4,9	...	33,7	18. 35.	- 0,03	18. 35. 4,67	B.
	Σ 2404.	33,1	47,0	0,7	14,3	28,0	41,7	18. 44. 55,1		18. 44. 14,27	B.
	Σ 2422.	51,9	7,2	22,0	37,1	51,9	6,7	18. 52. 22,1		18. 51. 36,99	B.
	(e) Jupiter 1 L.	14,0	...	43,0	...	12,9	...	18. 57. 42,0	+ 0,02	18. 56. 57,99	B.
	Jupiter 2 L. ....	...	32,1	...	1,4	...	30,7	18. 57.	- 0,03	18. 57. 1,37	B.
	Σ 2486. <i>nf.</i>	52,1	13,0	33,1	54,2	15,1	36,0	19. 9. 56,4		19. 8. 54,27	B.
	(b) α Aquilæ	18,8	32,2	45,7	59,3	13,0	26,4	19. 44. 40,3		19. 43. 59,39	B.
	β Aquilæ	47,1	0,9	14,5	28,2	41,9	55,2	19. 49. 9,1		19. 48. 28,13	B.
	Σ 2606.	33,1	49,1	5,2	21,3	37,1	53,3	19. 54. 9,5		19. 53. 21,22	B.
	Σ 2667. <i>nf.</i>	20,1	39,9	58,0	17,6	36,9	55,9	20. 14. 15,0		20. 13. 17,63	B.
	δ Aquarii	17,8	31,2	44,1	58,1	11,7	25,1	20. 44. 38,7		20. 43. 58,10	B.
	β Aquarii	28,8	42,4	56,0	9,7	23,3	36,4	21. 24. 50,1		21. 24. 9,53	B.
	Σ 2861. <i>nf.</i>	47,0	1,1	15,1	29,7	44,2	57,9	22. 0. 12,6		21. 59. 29,66	B.
	α Pegasi	7,1	21,1	34,7	49,3	3,2	16,9	22. 58. 31,1		22. 57. 49,06	B.
	(e) Uranus	11,0	24,3	37,7	51,1	4,3	17,9	23. 51. 31,3		23. 50. 51,08	B.
	α Andromedæ	23,3	38,5	53,9	9,1	24,3	39,4	0. 1. 55,0		0. 1. 9,07	B.
Sept. 5	(e) \odot 2 L.	34,0	47,9	1,3	15,0	29,0	42,2	10. 57. 55,9		10. 57. 15,04	B.
Sept. 6	α Herculis	36,1	50,2	4,1	18,0	31,8	45,6	17. 8. 59,4		17. 8. 17,89	B.
	α Ophiuchi	46,1	59,8	13,6	27,3	41,1	55,0	17. 29. 8,9		17. 28. 27,40	B.
	70 Ophiuchi. <i>np.</i> ..	39,3	53,0	6,2	20,1	33,3	47,0	17. 59. 0,4		17. 58. 19,90	B.
	δ Serpentis	18,9	32,5	45,9	59,3	13,0	26,1	18. 20. 39,9		18. 19. 59,37	B.
	Σ 2339. <i>sf.</i>	56,1	10,1	23,8	38,2	52,8	6,9	18. 28. 20,9		18. 27. 38,40	B.
	Saturn 1 L.	6,0	...	35,0	...	5,0	...	18. 35. 33,3	+ 0,02	18. 34. 49,84	B.
	Saturn 2 L. ....	...	24,1	...	53,1	...	22,2	18. 35.	- 0,03	18. 34. 53,10	B.
	α Aquilæ	16,1	29,3	42,5	56,5	10,4	23,7	19. 44. 37,2		19. 43. 56,53	B.
	β Aquilæ	45,0	58,2	11,5	25,1	39,0	52,3	19. 49. 5,7		19. 48. 25,26	B.
Sept. 8	α Pegasi	2,9	17,2	30,4	44,4	58,3	12,2	22. 58. 26,2		22. 57. 44,51	B.
	Uranus	23,9	37,2	50,7	4,4	17,8	31,2	23. 50. 44,6		23. 50. 4,26	B.
	(b) α Andromedæ	18,9	34,2	49,3	4,9	20,2	35,2	0. 1. 50,9		0. 1. 4,80	B.
Sept. 9	(f) Saturn 1 L.	58,9	...	26,9	...	55,9	...	18. 35. 26,2	+ 0,02	18. 34. 41,99	B.
	Saturn 2 L. ....	...	16,7	...	45,8	...	15,0	18. 35.	- 0,03	18. 34. 45,80	B.
	Jupiter 1 L.	56,3	...	26,0	...	55,1	...	18. 57. 24,5	+ 0,02	18. 56. 40,49	B.
	Jupiter 2 L. ....	...	14,7	...	44,1	...	13,2	18. 57.	- 0,03	18. 56. 43,97	B.
	Σ 2486. <i>nf.</i>	46,2	7,3	27,8	49,1	9,9	30,2	19. 9. 51,1		19. 8. 48,80	B.
	Piazzixix. 149. <i>nf.</i> ..	59,3	16,1	32,5	49,4	6,1	23,0	19. 23. 39,3		19. 22. 49,39	B.
	(e) α Aquilæ	13,3	26,9	40,2	54,1	7,8	21,2	19. 44. 34,8		19. 43. 54,04	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Very faint.

(b) Blazing.

(d) Set down 'sp' by mistake.

(e) Faint.

(e) Very cloudy.

(f) Confused. The intervals are bad and the diameter given by the observation is too large.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,65	+ 3,78	55,07			0,97	- 7,22	19. 8. 3,06	- 2,72	Σ 2486. <i>nf.</i>
			54,95					19. 22. 2,95	- 3,16	Piazzi xix. 149. <i>sp.</i>
			0,43	8,34	- 7,91			19. 43. 8,45	- 3,86	α Aquilæ.
			29,02	37,05	- 8,03			19. 47. 37,04	- 3,90	β Aquilæ.
			47,70					19. 52. 55,72	- 3,31	Σ 2609.
			16,46					19. 56. 24,48	- 3,13	Σ 2619. <i>sp.</i>
			24,90					20. 2. 32,93	- 3,92	Σ 2635.
			28,83					20. 18. 36,87	- 3,20	Σ 2681. <i>nf.</i>
			15,72					20. 39. 23,78	- 3,92	γ Delphini. <i>f.</i>
			43,92					20. 43. 51,98	- 4,35	δ Aquarii.
			22,52					20. 54. 30,58	- 3,56	59 Cygni.
			30,41					21. 58. 38,52	- 4,10	Σ 2861. <i>nf.</i>
			15,66					22. 39. 23,80	- 4,58	Σ 2943.
			49,82	57,94	- 8,12			22. 56. 57,97	- 4,23	α Pegasi.
			0,53					23. 50. 8,71		Uranus.
			9,89	18,29	- 8,40			0. 0. 18,08	- 4,31	α Andromedæ.
						1,06	51,78	17. 27. 39,32	- 3,08	α Ophiuchi.
			30,33	39,22	51,11			17. 49. 31,62	- 3,07	Piazzi xvii. 300. <i>p.</i>
			22,61					17. 57. 31,73	- 3,47	70 Ophiuchi. <i>np.</i>
			22,71							Saturn's center.
			3,12					18. 34. 12,16		
			14,11					18. 43. 23,16	- 3,51	Σ 2404.
			36,68					18. 50. 45,73	- 3,21	Σ 2422.
			59,80					18. 56. 8,86		Jupiter's center.
			53,65					19. 8. 2,71	- 2,69	Σ 2486. <i>nf.</i>
			59,25	8,33	50,92			19. 43. 8,34	- 3,85	α Aquilæ.
			28,00	37,04	50,96			19. 47. 37,09	- 3,89	β Aquilæ.
			20,85					19. 52. 29,95	- 3,39	Σ 2606.
			17,09					20. 12. 26,20	- 3,28	Σ 2667. <i>nf.</i>
			58,08					20. 43. 7,22	- 4,35	4 Aquarii.
			9,51	18,71	50,80			21. 23. 18,68	- 4,41	β Aquarii.
			29,42					21. 58. 38,61	- 4,10	Σ 2861. <i>nf.</i>
			48,87	57,95	50,92			22. 56. 58,11	- 4,24	α Pegasi.
			51,03					23. 50. 0,30		Uranus.
			8,75	18,30	50,45			0. 0. 18,03	- 4,32	α Andromedæ.
	- 5,18		14,93			0,90	49,71	10. 56. 25,63		⊙ 2 L.
			17,73	29,62	48,11			17. 7. 29,56	- 2,89	α Herculis.
			27,26	39,17	48,09			17. 27. 39,11	- 3,03	α Ophiuchi.
			19,82					17. 57. 31,69	- 3,43	70 Ophiuchi. <i>np.</i>
			59,32					18. 19. 11,20	- 3,59	59 Serpentis.
			38,21					18. 26. 50,09	- 3,23	Σ 2339. <i>sf.</i>
			51,60					18. 34. 3,49		Saturn's center.
			56,42	8,30	48,12			19. 43. 8,35	- 3,82	α Aquilæ.
			25,16	37,01	48,15			19. 47. 37,09	- 3,86	β Aquilæ.
		+ 2,56	44,30	57,99	46,31	0,85	47,04			α Pegasi.
			4,16							Uranus.
			4,47	18,37	46,10	0,80	46,15	23. 49. 17,96		α Andromedæ.
			43,95					18. 33. 58,43		Saturn's center.
			42,28					18. 55. 56,76		Jupiter's center.
			48,22					19. 8. 2,71	- 2,53	Σ 2486. <i>nf.</i>
			48,99					19. 22. 3,49	- 3,03	Piazzi xix. 149. <i>nf.</i>
			53,87	8,27	45,60			19. 43. 8,38	- 3,79	α Aquilæ.

Sept. 3. 3^h, I put the clock forward 1^m, not being aware that it had been put forward on Sept. 2.
 Sept. 7. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Sept. 9	(a) β Aquilæ	42,4	56,1	9,2	22,9	36,2	50,0	19.49.3,8		19.48.22,94	B.
	β Aquarii	23,3	37,2	50,3	4,0	18,0	30,9	21.24.45,0		21.24.4,10	B.
	Σ 2834.	21,3	35,9	49,8	4,2	18,5	32,8	21.45.47,1		21.45.4,23	B.
	α Aquarii	49,2	3,0	16,2	29,9	43,4	57,2	21.59.10,4		21.58.29,90	B.
	Σ 2943.	27,1	41,0	55,1	9,1	23,2	37,0	22.40.51,0		22.40.9,08	B.
	Uranus	14,1	27,9	41,2	54,7	8,3	21,9	23.50.35,3		23.49.54,77	B.
	α Andromedæ	18,1	33,2	48,1	4,2	19,3	34,3	0.1.49,8		0.1.3,85	B.
Sept. 10	4 Aquarii	11,1	24,7	38,1	52,0	6,0	19,2	20.44.32,3		20.43.51,91	B.
	β Aquarii	22,8	36,2	49,7	3,4	17,1	30,2	21.24.43,9		21.24.3,33	B.
	Σ 2840. <i>nf.</i>	19,1	42,7	5,9	29,5	53,3	16,6	21.48.39,9		21.47.29,57	B.
	α Aquarii	48,8	2,3	15,6	29,3	42,8	56,1	21.59.9,6		21.58.29,22	B.
	Σ 2881.	26,0	41,1	56,2	11,6	27,2	42,3	22.8.57,8		22.8.11,74	B.
	α Pegasi	1,2	15,1	29,0	42,9	57,0	10,9	22.58.24,8		22.57.42,98	B.
	(b) Uranus	4,8	18,1	31,4	45,1	58,8	12,2	23.50.25,6		23.49.45,14	B.
Sept. 12	(c) \odot 1 L.	33,2	46,9	0,2	13,8	27,4	41,0	11.20.54,2		11.20.13,81	B.
	(c) \odot 2 L.	41,2	55,0	8,4	22,2	36,1	49,3	11.23.3,1		11.22.22,18	B.
	(c) Arcturus	29,9	43,9	58,2	12,9	27,1	41,4	14.9.56,1		14.9.12,78	B.
	(b) ϵ Bootis	17,7	33,1	48,3	4,0	19,2	34,5	18.11.49,9	- 15,21	14.38.50,59	B.
	(d) 1 L.	55,0	23,9	40,1	53,6	18,3	34,5	18.35.22,8	+ 0,02	18.34.38,84	B.
	Saturn 1 L.	12,8	42,1	11,3	18,3	34,5	18,3	18.35. . . .	- 0,03	18.34.42,04	B.
	Saturn 2 L.	30,1	45,2	0,2	15,6	30,7	45,2	18.47.0,8		18.46.15,40	B.
	(e) σ Sagittarii	59,3	27,9	58,0	18,5	34,5	18,5	18.57.27,1	+ 0,02	18.56.43,09	B.
	Jupiter 1 L.	17,4	46,7	15,8	18,5	34,5	18,5	18.57. . . .	- 0,03	18.56.46,60	B.
	Jupiter 2 L.	51,0	6,1	19,8	35,0	49,1	3,3	19.13.18,1		19.12.34,63	B.
	(b) Σ 2499.	21,1	35,1	48,3	2,3	16,1	29,9	19.42.43,9		19.42.2,38	B.
	π Aquilæ	11,2	24,6	38,0	51,6	5,2	19,1	19.44.32,4		19.43.51,73	B.
	α Aquilæ	39,3	53,2	6,5	20,1	34,1	47,1	19.49.1,0		19.48.20,18	B.
	β Aquilæ	56,7	12,2	27,1	43,1	58,8	14,1	19.59.30,0		19.58.43,14	B.
	(f) Σ 2626.	38,2	52,0	5,2	19,0	32,2	45,6	20.5.59,2		20.5.18,77	B.
	Piazzi xx. 26. <i>nf.</i> . . .	12,1	31,1	50,1	9,9	29,0	47,6	20.14.7,0		20.13.9,55	B.
	Σ 2667. <i>nf.</i>	9,5	23,1	36,6	50,2	3,9	17,1	20.44.30,9		20.43.50,18	B.
	4 Aquarii	18,9	34,1	50,6	7,1	23,1	39,0	21.1.55,1		21.1.6,84	B.
	Σ 2760. <i>nf.</i>	21,1	34,6	48,2	2,0	15,6	28,9	21.24.42,3		21.24.1,81	B.
	β Aquarii	17,2	41,1	3,7	27,6	51,2	15,0	21.48.38,3		21.47.27,73	B.
	Σ 2840. <i>nf.</i>	46,9	0,7	14,2	27,4	41,0	54,3	21.59.7,8		21.58.27,47	B.
	α Aquarii	59,2	13,3	26,8	41,2	55,1	8,9	22.58.22,9		22.57.41,05	B.
	α Pegasi	45,8	59,1	12,5	26,2	39,8	53,1	23.50.6,4		23.49.26,13	B.
	Uranus	15,7	31,1	46,2	1,6	16,9	32,1	0.1.47,2		0.1.1,54	B.
	α Andromedæ	39,12,6	47,44,7	56.1,2	4,36,3	13.2,7	21,22,6	1.29.50,2		1.4.32,90	B.
	(g) Polaris										
Sept. 13	(c) \odot 1 L.	7,6	21,3	35,0	48,6	2,4	15,5	11.24.29,2		11.23.48,52	B.
	(c) \odot 2 L.	16,3	30,0	43,3	56,9	10,4	24,1	11.26.37,9		11.25.56,99	B.
	(c) Polaris SP.	38,45,5	47,11,6	3,58,7	13,	13,	13,	13.	+ 14.2,00	13.4.0,60	B.
	(h) Arcturus	28,6	42,8	57,3	12,2	26,4	40,7	14.9.55,1		14.9.11,87	B.
Sept. 14	(c) \odot 1 L.	42,2	55,8	9,6	23,1	36,5	49,9	11.28.3,6		11.27.22,95	B.
	(c) \odot 2 L.	51,0	4,6	17,8	31,4	45,1	58,6	11.30.12,1		11.29.31,51	B.
	(g) Arcturus	28,1	42,3	56,5	11,1	25,6	39,9	14.9.54,1		14.9.11,08	B.
	ϵ Bootis	3,4	18,7	33,4	49,1	4,0	19,2	14.39.34,4		14.38.48,89	B.
	(g) α Ophiuchi	39,2	53,1	6,7	20,8	34,5	48,1	17.29.2,1		17.28.20,64	B.
	(f) Σ 2278.	54,7	23,9	41,6	53,2	11,0	18,3	18.35.22,3	- 36,56	18.0.51,21	B.
	Saturn 1 L.	12,6	41,6	53,2	18,3	34,5	18,3	18.35.22,3	+ 0,02	18.34.38,54	B.
	Saturn 2 L.	47,0	0,4	13,8	27,9	41,1	54,6	18.39.7,9	- 0,03	18.34.41,70	B.
	Σ 2375. <i>np.</i>	31,3	45,0	58,4	13,2	26,3	40,1	18.45.54,1		18.38.27,53	B.
	Σ 2409.	41,9	57,2	12,1	27,1	42,2	57,0	18.45.12,63		18.45.12,63	B.
	Σ 2422.	5,9	34,1	3,1	18,5	33,2	18,5	18.52.12,1		18.51.27,09	B.
	Jupiter 1 L.	23,4	52,9	21,8	18,5	33,2	18,5	18.57.33,2	+ 0,02	18.56.49,09	B.
	Jupiter 2 L.							18.57.	- 0,03	18.56.52,67	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Very cloudy.

(b) Cloudy.

(c) Very unsteady and cloudy.

(d) Vibrating.

(e) Blazing.

(f) Very faint.

(g) Unsteady.

(h) Cloudy. Grouped with the preceding clock-stars.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,18	+ 2,56	22,78	36,98	45,80	0,80	46,15	19 . 47 . 37,29	- 3,83	β Aquilæ.
			4,03	18,70	45,33			21 . 23 . 18,59	- 4,40	β Aquarii.
			3,98					21 . 44 . 18,56	- 4,07	Σ 2834.
			29,79	44,44	45,35			21 . 57 . 44,37	- 4,37	α Aquarii.
			9,06					22 . 39 . 23,67	- 4,62	Σ 2943.
			54,67					23 . 49 . 9,31		Uranus.
			3,52	18,38	45,14			0 . 0 . 18,17	- 4,40	α Andromedæ.
			51,84							
			3,26	18,70	44,56			20 . 43 . 7,12	- 4,30	4 Aquarii.
			28,89					21 . 23 . 18,56	- 4,40	β Aquarii.
			29,11	44,44	44,67			21 . 46 . 44,21	- 3,85	Σ 2840. <i>nf.</i>
			11,41					21 . 57 . 44,43	- 4,37	α Aquarii.
			42,77	58,00	44,77			22 . 7 . 26,74	- 4,07	Σ 2881.
			45,04					22 . 56 . 58,13	- 4,29	α Pegasi.
								23 . 49 . 0,42		Uranus.
	- 5,28					0,85	43,71			
			17,85					11 . 20 . 34,54		\odot 's center.
			12,52	29,42	43,10			14 . 8 . 29,31	- 1,95	Arcturus.
			50,26	7,16	43,10			14 . 38 . 7,07	- 1,91	ϵ Bootis.
			3,87					18 . 10 . 20,80		γ 1 L.
			40,48					18 . 33 . 57,43		Saturn's center.
			15,46					18 . 45 . 32,42	- 4,39	σ Sagittarii.
			44,88					18 . 56 . 1,84		Jupiter's center.
			34,35					19 . 11 . 51,32	- 3,27	Σ 2409.
			2,19					19 . 41 . 19,18	- 3,64	π Aquilæ.
			51,55	8,22	43,33			19 . 43 . 8,54	- 3,74	α Aquilæ.
			20,01	36,94	43,07			19 . 47 . 37,00	- 3,79	β Aquilæ.
			42,79					19 . 57 . 59,79	- 3,34	Σ 2626.
			18,65					20 . 4 . 35,65	- 4,00	Piazzi xx. 26. <i>nf.</i>
			9,02					20 . 12 . 26,03	- 3,12	Σ 2667. <i>nf.</i>
			50,11					20 . 43 . 7,13	- 4,28	4 Aquarii.
			6,46					21 . 0 . 23,49	- 3,66	Σ 2760. <i>nf.</i>
			1,74	18,69	43,05			21 . 23 . 18,79	- 4,39	β Aquarii.
			27,04					21 . 46 . 44,10	- 3,83	Σ 2840. <i>nf.</i>
			27,36	44,43	42,93			21 . 57 . 44,43	- 4,36	α Aquarii.
			40,84	58,00	42,84			22 . 56 . 57,95	- 4,29	α Pegasi.
			26,02					23 . 48 . 43,15		Uranus.
			1,21	18,41	42,80			0 . 0 . 18,35	- 4,43	α Andromedæ.
			16,78	34,64	42,14		42,86	1 . 3 . 33,96	- 51,13	Polaris.
			52,61			0,89	42,08	11 . 24 . 10,15		\odot 's center.
			16,55	34,85	41,70			1 . 3 . 34,15	- 51,34	Polaris SP.
			11,61	29,41	42,20			14 . 8 . 29,25	- 1,94	Arcturus.
	+ 3,46					0,89	42,08			
			27,14					11 . 27 . 45,49		\odot 's center.
			10,85	29,40	41,45			14 . 8 . 29,30	- 1,93	Arcturus.
			48,59	7,14	41,45			14 . 38 . 7,05	- 1,89	ϵ Bootis.
			20,47	39,04	41,43			17 . 27 . 39,04	- 2,90	α Ophiuchi.
			50,48					18 . 0 . 9,07	- 1,45	Σ 2278.
			40,22					18 . 33 . 58,83		Saturn's center.
			27,42					18 . 37 . 46,03	- 3,44	Σ 2375. <i>np.</i>
			12,46					18 . 44 . 31,08	- 3,29	Σ 2409.
			26,80					18 . 50 . 45,42	- 3,01	Σ 2422.
			50,98					18 . 56 . 9,60		Jupiter's center.

Sept. 13. 4^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Sept. 14	Σ 2499.....	49,2	4,0	18,1	32,9	47,3	2,1	19. 13. 16,2		19. 12. 32,83	B.
	h ² Sagittarii.....	6,3	21,2	36,0	51,1	6,0	20,7	19. 28. 36,2		19. 27. 51,07	B.
	57 Sagittarii.....	3,8	18,1	32,1	46,4	0,8	15,2	19. 44. 29,3		19. 43. 46,53	B.
	β Aquilæ.....	37,7	51,4	5,2	18,6	32,1	45,7	19. 48. 59,1		19. 48. 18,55	B.
	γ 1 L.....	11,4	26,1	41,0	56,0	10,6	25,2	19. 59. 40,0		19. 58. 55,76	B.
	β ² Capricorni.....	11,7	25,9	39,2	54,1	7,5	22,0	20. 13. 35,3		20. 12. 53,67	B.
	ν Capricorni.....	6,2	20,5	34,2	48,9	3,1	17,7	20. 32. 31,4		20. 31. 48,86	B.
	Σ 2759.....	52,7	8,2	24,0	40,1	55,9	12,0	21. 1. 27,9		21. 0. 40,11	B.
	β Aquarii.....	19,2	32,8	46,2	0,1	13,7	27,3	21. 24. 40,9		21. 24. 0,02	B.
	α Aquarii.....	45,2	58,9	12,2	25,9	39,4	52,7	21. 59. 6,3		21. 58. 25,80	B.
	Σ 2881.....	22,1	37,5	53,1	8,7	24,1	39,0	22. 8. 54,2		22. 8. 8,39	B.
	(a) α Pegasi.....	57,7	11,9	25,3	39,2	53,7	7,2	22. 58. 21,1		22. 57. 39,45	B.
	Uranus.....	26,5	40,1	53,5	7,2	20,5	33,9	23. 49. 47,2		23. 49. 6,99	B.
	(b) α Andromedæ....	14,1	29,1	44,2	0,3	15,1	30,6	0. 1. 46,0		0. 0. 59,91	B.
	(a) Polaris.....	39.20,3	47.47,8	56. 5,3	....	12.57,8	....	1.	+ 10. 31,55	1. 4. 34,35	B.
Sept. 15	α Coronæ Borealis.	57,2	12,3	27,1	43,0	58,1	13,2	15. 29. 28,1		15. 28. 42,71	B.
	(a) α Serpentis.....	31,8	45,5	58,8	12,6	26,3	39,6	15. 37. 53,4		15. 37. 12,57	B.
	(b) α Ophiuchi.....	38,1	52,1	5,8	20,0	33,5	47,2	17. 29. 1,1		17. 28. 19,68	B.
	(c) Σ 2278.....	....	59,8	23,2	48,1	13,0	37,1	18. 3. 1,2	- 12,17	18. 1. 48,23	B.
	Saturn 1 L.....	55,0	....	23,4	....	53,9	....	18. 35. 23,0	+ 0,02	18. 34. 38,84	B.
	Saturn 2 L.....	....	12,7	....	42,2	....	11,4	18. 35.	- 0,03	18. 34. 42,07	B.
	(d) Σ 2409.....	30,0	44,0	57,6	11,8	25,2	39,1	18. 45. 52,7		18. 45. 11,48	B.
	Σ 2422.....	41,1	56,1	10,8	26,2	41,3	56,1	18. 52. 11,0		18. 51. 26,09	B.
	Jupiter 1 L.....	9,9	....	38,8	....	8,2	....	18. 57. 37,3	+ 0,02	18. 56. 53,57	B.
	Jupiter 2 L.....	....	27,3	....	56,7	....	26,0	18. 57.	- 0,03	18. 56. 56,64	B.
	(e) Σ 2466.....	41,1	56,2	12,0	27,6	43,0	58,1	19. 3. 14,0		19. 2. 27,43	B.
	(e) Σ 2499.....	48,1	3,1	17,2	32,0	46,2	1,0	19. 13. 15,1		19. 12. 31,81	B.
	α Aquilæ.....	8,0	21,5	34,9	48,9	2,7	16,2	19. 44. 29,5		19. 43. 48,82	B.
	β Aquilæ.....	37,0	50,4	3,8	17,2	31,3	44,4	19. 48. 58,2		19. 48. 17,47	B.
	Σ 2610. np.....	6,9	23,2	39,7	56,2	13,0	29,0	19. 54. 45,9		19. 53. 56,27	B.
	(e) Σ 2635.....	32,3	46,1	0,0	13,4	27,1	40,4	20. 3. 54,1		20. 3. 13,34	B.
	(f) β ² Capricorni.....	10,8	24,3	38,2	52,9	7,0	20,3	20. 13. 34,1		20. 12. 52,51	B.
	ν Capricorni.....	5,2	19,4	34,0	48,1	2,3	16,1	20. 32. 30,7		20. 31. 47,97	B.
	γ 1 L.....	34,1	48,6	3,0	17,7	32,0	46,4	20. 49. 0,8		20. 48. 17,52	B.
	β Aquarii.....	18,3	32,2	45,1	59,2	12,7	26,0	21. 24. 39,9		21. 23. 59,06	B.
	α Aquarii.....	44,6	58,2	11,4	25,1	38,6	52,0	21. 59. 5,3		21. 58. 25,03	B.
	α Pegasi.....	57,0	11,1	24,7	38,5	52,2	6,1	22. 58. 20,0		22. 57. 38,52	B.
	Uranus.....	16,7	30,1	43,5	57,3	10,9	24,1	23. 49. 38,1		23. 48. 57,25	B.
	(b) α Andromedæ....	13,2	28,4	43,3	59,1	14,1	29,8	0. 1. 45,2		0. 0. 59,02	B.
	(g) Polaris.....	39.13,2	47.41,4	56. 1,2	43.17	13. 1,5	21.22,6	1. 29. 47,7		1. 4. 31,33	B.
Sept. 16	(g) ⊙ 1 L.....	51,4	4,8	18,3	32,0	45,9	59,1	11. 35. 12,6		11. 34. 32,01	B.
	(g) ⊙ 2 L.....	0,1	13,5	26,9	40,4	53,8	7,2	11. 37. 20,9		11. 36. 40,40	B.
	(g) Polaris SP.....	....	47.12,3	55.29,5	....	....	20.44,7	13.	+ 2. 49,58	13. 3. 58,41	B.
	(a) Coronæ Borealis...	56,1	11,4	26,4	41,7	56,9	12,1	15. 29. 27,0		15. 28. 41,65	B.
	α Ophiuchi.....	37,2	51,2	4,7	18,8	32,4	46,1	17. 28. 59,9		17. 28. 18,62	B.
	(h) Jupiter 1 L.....	14,4	....	43,5	....	13,2	....	18. 57. 42,1	+ 0,02	18. 56. 58,32	B.
	Jupiter 2 L.....	....	32,3	....	1,9	....	30,7	18. 57.	- 0,03	18. 57. 1,60	B.
	Σ 2500.....	32,4	46,4	0,1	15,0	29,2	43,1	19. 13. 57,3		19. 13. 14,79	B.
	(b) α Aquilæ.....	7,7	21,3	34,5	48,3	1,5	15,2	19. 44. 28,4		19. 43. 48,13	B.
	β Aquilæ.....	35,7	49,2	2,8	16,5	29,9	44,2	19. 48. 57,1		19. 48. 16,49	B.
	Σ 2616.....	29,1	42,7	56,4	10,9	24,5	38,1	19. 56. 52,0		19. 56. 10,52	B.
	(a) Σ 2631.....	17,1	31,3	46,0	0,5	14,9	29,2	20. 1. 43,4		20. 1. 0,34	B.
	(a) Σ 2666.....	21,1	38,8	56,2	14,1	81,8	49,2	20. 14. 7,1		20. 13. 14,04	B.
	ν Capricorni.....	1,4	16,0	29,2	43,8	57,5	11,3	21. 8. 25,3		21. 7. 43,50	B.
	(a) β Aquarii.....	17,1	30,7	44,2	58,1	11,7	25,2	21. 24. 39,1		21. 23. 58,02	B.
	(g) γ 1 L.....	26,8	41,0	54,7	9,2	23,3	37,2	21. 35. 51,3		21. 35. 9,08	B.
	(a) θ Aquarii.....	32,8	46,3	59,4	13,3	27,1	40,8	22. 9. 54,1		22. 9. 13,40	B.
	α Pegasi.....	56,1	9,8	23,7	37,7	51,4	5,2	22. 58. 19,1		22. 57. 37,57	B.
	(a) Uranus.....	7,1	20,4	33,8	47,1	0,9	14,3	23. 49. 27,9		23. 48. 47,36	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, GFEDCBA.

(a) Cloudy.
 (b) Flaming.
 (c) Very faint.
 (d) Seen double: very faint.

(e) Seen double.
 (f) Confused.
 (g) Cloudy and unsteady.
 (h) Cloudy and very faint.

[illegible]

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Sept. 17	(a) ☉ 1 L.	25,4	39,1	52,4	6,4	...	...	11.38.47,0	+ 8,12	11.38.6,18	B.
	☉ 2 L.	34,0	47,5	0,8	14,6	28,1	41,4	11.40.55,1		11.40.14,50	B.
	(a) Arcturus.....	24,9	...	...	8,3	22,6	36,8	14.9.51,1	- 8,62	14.9.8,12	B.
Sept. 18	(a) Regulus.....	54,5	8,4	22,1	36,1	50,1	3,9	10.1.17,7		10.0.36,12	B.
Sept. 19	(a) ☉ 1 L. ....	...	...	0,7	14,5	28,1	41,7	11.45.55,3	- 13,49	11.45.14,57	B.
	☉ 2 L.	42,9	56,2	9,5	...	...	50,1	11.48.3,7	+ 2,72	11.47.23,20	B.
	Saturn 1 L.....	0,3	...	29,1	...	59,0	...	18.35.28,1	+ 0,02	18.34.44,14	B.
	Saturn 2 L. ....	...	18,2	...	47,4	...	16,6	18.35.	- 0,03	18.34.47,37	B.
	(b) Σ 2409. sp.	25,2	39,5	53,3	7,5	21,2	34,9	18.45.48,5		18.45.7,16	B.
	Jupiter 1 L.....	33,5	...	2,9	...	32,4	...	18.58.1,9	+ 0,02	18.57.17,69	B.
	Jupiter 2 L.....	...	51,6	...	20,8	...	50,1	18.57.	- 0,03	18.57.20,80	B.
	(b) Σ 2466. np.	37,0	51,9	7,1	22,7	38,9	54,0	19.3.9,8		19.2.23,05	B.
	(c) Σ 2500.	28,2	43,1	56,9	11,6	26,0	40,1	19.13.54,1		19.13.11,43	B.
	α Aquilæ.....	4,0	17,3	31,0	44,5	58,2	11,9	19.44.25,2		19.43.44,59	B.
	(b) β Aquilæ.....	32,4	46,1	59,3	13,2	27,0	40,2	19.48.53,8		19.48.13,14	B.
	(b) α Pegasi.....	52,4	6,3	20,2	34,2	48,0	2,1	22.58.16,1		22.57.34,19	B.
	Uranus.....	37,4	51,1	4,2	18,1	31,7	45,0	23.48.58,4		23.48.17,99	B.
	☽ 2 L.....	48,1	2,0	15,6	29,4	43,2	6,9	23.51.11,1		23.50.29,48	B.
	(b) α Andromedæ....	9,1	24,2	39,2	54,9	10,1	25,1	0.1.40,6		0.0.54,74	B.
	d Piscium.....	28,3	41,8	55,2	8,9	22,8	36,2	0.13.49,8		0.13.9,00	B.
	(d) Regulus.....	53,8	7,7	21,2	35,1	49,1	2,7	10.1.16,5		10.0.35,16	B.
Sept. 20	(e) ☉ 1 L.	8,5	22,1	35,4	49,1	2,7	16,3	11.49.29,7		11.48.49,12	B.
	☉ 2 L.	16,9	30,5	43,9	57,7	11,1	24,4	11.51.38,0		11.50.57,50	B.
	Saturn 1 L.....	3,1	...	31,9	...	2,0	...	18.35.30,9	+ 0,02	18.34.46,99	B.
	Saturn 2 L.....	...	20,8	...	50,1	...	19,2	18.35.	- 0,03	18.34.50,00	B.
	Jupiter 1 L.....	41,9	...	11,8	...	40,9	...	18.58.10,1	+ 0,02	18.57.26,19	B.
	Jupiter 2 L.....	...	59,9	...	29,5	...	58,9	18.57.	- 0,03	18.57.29,40	B.
	α Aquilæ.....	3,1	16,9	30,2	44,2	57,8	11,1	19.44.24,9		19.43.44,03	B.
	β Aquilæ.....	32,1	45,2	58,9	12,4	26,1	39,7	19.48.53,2		19.48.12,51	B.
	Σ 2671. sf.	59,1	22,1	45,1	9,1	32,3	56,0	20.16.19,2		20.15.8,99	B.
	β Aquarii.....	13,6	27,0	40,8	54,1	7,9	21,2	21.24.35,0		21.23.54,23	B.
	α Aquarii.....	39,3	53,2	6,3	20,1	33,7	47,1	21.59.0,6		21.58.20,04	B.
	(f) α Pegasi.....	52,1	6,1	19,7	33,8	47,9	1,8	22.58.15,4		22.57.33,83	B.
	Uranus.....	28,1	41,3	54,9	8,4	22,0	35,1	23.48.49,1		23.48.8,42	B.
	α Andromedæ....	8,3	23,6	38,8	54,2	9,8	24,6	0.1.40,1		0.0.54,20	B.
	d Piscium.....	27,6	41,3	54,7	8,7	22,1	35,3	0.13.49,1		0.13.8,40	B.
	☽ 2 L.....	41,8	55,5	9,1	23,4	37,3	51,1	0.36.4,9		0.35.23,30	B.
	ε Piscium.....	44,0	57,8	11,1	25,1	38,3	52,1	0.56.5,9		0.55.24,90	B.
Sept. 21	Jupiter 1 L.....	52,0	...	21,0	...	50,4	...	18.58.19,3	+ 0,02	18.57.35,69	B.
	Jupiter 2 L.....	...	9,7	...	39,1	...	8,3	18.58.	- 0,03	18.57.39,00	B.
	(g) Σ 2500.	27,1	42,0	55,7	10,2	24,3	39,0	19.13.53,2		19.13.10,21	B.
	(f) α Aquilæ.....	2,8	16,2	29,5	43,4	57,1	10,7	19.44.24,2		19.43.43,41	B.
	β Aquilæ.....	31,3	44,9	58,2	12,1	25,6	39,2	19.48.52,5		19.48.11,97	B.
	α Pegasi.....	51,9	5,4	19,1	33,2	47,1	1,1	22.58.15,1		22.57.33,27	B.
	Uranus.....	18,4	32,1	45,2	59,1	13,0	26,2	23.48.39,3		23.47.59,05	B.
	(b) α Andromedæ....	7,9	23,1	38,1	53,9	9,2	24,1	0.1.39,3		0.0.53,65	B.
	(e) Polaris.....	39.9,6	47.41,4	56.0,8	4.31,7	12.54,8	...	1.29.47,6	+ 2.48,26	1.4.29,24	B.
	(h) ☽ 2 L.....	14,9	29,0	42,9	57,1	11,4	25,5	1.22.39,9		1.21.57,24	B.
Sept. 22	(i) Jupiter 1 L.....	2,0	...	30,1	...	59,7	...	18.58.30,1	+ 0,02	18.57.45,49	B.
	Jupiter 2 L.....	...	19,9	...	49,3	...	18,8	18.58.	- 0,03	18.57.49,30	B.
Sept. 24	β Aquarii.....	11,6	25,1	39,1	52,3	6,2	19,2	21.24.33,3		21.23.52,40	B.
	α Aquarii.....	37,4	50,9	4,3	18,2	31,6	44,8	21.58.58,5		21.58.17,96	B.
	(b) α Pegasi.....	49,8	4,2	18,1	31,6	45,9	59,3	22.58.13,3		22.57.31,74	B.
	(b) Uranus.....	50,9	4,2	17,6	31,1	45,1	58,2	23.48.11,6		23.47.31,24	B.
	(b) α Andromedæ....	6,8	21,9	37,2	52,1	7,8	23,1	0.1.37,9		0.0.52,40	B.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, *GFEDCBA*.
From Sept. 24 EAST. *ABCDEF*.

(a) Very cloudy and unsteady. Arcturus is grouped with the preceding clock-stars. (b) Cloudy. (c) Hazy.
(d) Faint and unsteady. (e) Cloudy and unsteady. (f) Blazing. (g) Very faint. The observer was doubtful which star was taken. Probably the brighter as on Sept. 16 and 19. (h) Uneven limb and clouded.
(i) Cloudy: faint and unsatisfactory.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,60	- 5,28	+ 3,46	10,25			1,00	39,26	11 . 38 . 31,48		☉'s center.
			7,89	29,37	38,52			14 . 8 . 29,22	- 1,90	Arcturus.
			35,94	59,36	36,58	1,05	37,03	9 . 59 . 59,35	- 2,25	Regulus.
			18,77					11 . 45 . 42,26		☉'s center.
			45,84					18 . 34 . 9,62		Saturn's center.
			6,98					18 . 44 . 30,77	- 3,20	Σ 2409. <i>sp.</i>
			19,33					18 . 56 . 43,13		Jupiter's center.
			22,71					19 . 1 . 46,51	- 2,88	Σ 2466. <i>np.</i>
			11,20					19 . 12 . 35,01	- 3,21	Σ 2500.
			44,44	8,12	36,32			19 . 43 . 8,27	- 3,64	α Aquilæ.
			13,00	36,85	36,15			19 . 47 . 36,84	- 3,70	β Aquilæ.
			33,99	58,02	35,97			22 . 56 . 57,97	- 4,31	α Pegasi.
			17,91					23 . 47 . 41,92		Uranus.
	- 5,30	+ 3,12	29,37					23 . 49 . 53,38		☽ 2 L.
			54,42	18,48	35,94			0 . 0 . 18,44	- 4,50	α Andromedæ.
			8,86				35,98	0 . 12 . 32,89	- 4,44	d Piscium.
			34,98	59,38	35,60	0,60	36,07	9 . 59 . 59,16	- 2,27	Regulus.
			53,21					11 . 49 . 17,44		☉'s center.
			48,58					18 . 34 . 12,97		Saturn's center.
			27,88					18 . 56 . 52,28		Jupiter's center.
			43,88	8,11	35,77			19 . 43 . 8,30	- 3,63	α Aquilæ.
			12,37	36,84	35,53			19 . 47 . 36,79	- 3,69	β Aquilæ.
			8,29					20 . 14 . 32,73	- 2,66	Σ 2671. <i>sf.</i>
			54,18	18,64	35,54			21 . 23 . 18,64	- 4,34	β Aquarii.
			19,06	44,41	35,55			21 . 57 . 44,44	- 4,34	α Aquarii.
			33,63	58,02	35,61			22 . 56 . 58,13	- 4,31	α Pegasi.
			8,34					23 . 47 . 32,86		Uranus.
			53,88	18,48	35,40			0 . 0 . 18,41	- 4,50	α Andromedæ.
			8,26				35,47	0 . 12 . 32,80	- 4,44	d Piscium.
			23,16					0 . 34 . 47,70		☽ 2 L.
			24,76					0 . 54 . 49,31	- 4,43	ε Piscium.
			37,43			0,50	35,47	18 . 57 . 2,35		Jupiter's center.
			9,98					19 . 12 . 34,91	- 3,17	Σ 2500.
			43,26	8,09	35,17			19 . 43 . 8,20	- 3,61	α Aquilæ.
			11,83	36,82	35,01			19 . 47 . 36,77	- 3,67	β Aquilæ.
			33,07	58,02	35,05			22 . 56 . 58,08	- 4,31	α Pegasi.
			58,97					23 . 47 . 23,99		Uranus.
			53,33	18,49	34,84			0 . 0 . 18,36	- 4,51	α Andromedæ.
			12,25	37,43	34,82		34,97			Polaris.
			57,06					1 . 21 . 22,12		☽ 2 L.
			47,48					18 . 57 . 12,90		Jupiter's center.
	- 0,70	+ 2,59	52,36	18,61	33,75	0,62	34,20	21 . 23 . 18,71	- 4,31	β Aquarii.
			17,89	44,38	33,51			21 . 57 . 44,26	- 4,31	α Aquarii.
			31,58	58,01	33,57			22 . 56 . 57,97	- 4,30	α Pegasi.
			31,17					23 . 46 . 57,58		Uranus.
			52,15	18,51	33,64			0 . 0 . 18,57	- 4,53	α Andromedæ.

A great change of the clock's rate appears to have occurred on the night of Sept. 19.

Sept. 24. 2^h, the Transit was levelled first with its object-glass southward, then with object-glass northward, and the results were - 5",29 and - 5",32, the mean of which is used.

Sept. 24. 3^h, the Transit was reversed and the Error of Collimation determined.

Sept. 24. 4^h, the Transit was levelled with object-glass southward and object-glass northward, and the results were - 4",14 and - 4",03, the mean of which is used.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Sept. 26	(a) ☉ 1 L.	39,8	53,2	6,8	20,2	34,0	47,2	12. 11. 0,9		12. 10. 20,30	B.
	☉ 2 L.	47,9	2,0	14,9	28,5	.....	.....	12. 13. 9,1	+ 8,12	12. 12. 28,60	B.
	(b) Saturn 1 L.	29,1	.....	.....	.....	.....	.....	18. 35. 57,1	0,00	18. 35. 13,10	B.
	Saturn 2 L. ....	.....	47,2	.....	.....	.....	45,4	18. 35.	+ 0,02	18. 35. 16,32	B.
	Σ 2400. ....	.....	57,3	.....	25,1	39,2	53,2	18. 42.	- 3,52	18. 42. 25,18	B.
	(c) Σ 2504. sf.	55,1	9,3	23,9	38,1	52,6	6,3	19. 15. 20,8		19. 14. 38,02	B.
	(d) α Aquilæ	59,4	13,1	26,8	40,1	54,1	7,5	19. 44. 21,1		19. 43. 40,30	B.
	β Aquilæ	27,9	42,2	55,2	9,1	23,1	36,2	19. 48. 49,6		19. 48. 9,05	B.
	Σ 2613. sf.	49,2	2,9	16,8	30,3	44,1	57,7	19. 55. 11,3		19. 54. 30,32	B.
	(e) Σ 2631.	10,9	25,0	38,3	52,4	7,0	20,7	20. 1. 35,0		20. 0. 52,76	B.
	Σ 2671. sf.	55,3	19,0	42,1	6,1	29,4	52,2	20. 16. 16,2		20. 15. 5,76	B.
	β Aquarii.	10,2	23,8	37,1	50,9	5,0	17,9	21. 24. 31,9		21. 23. 50,97	B.
	α Aquarii.	36,1	49,7	3,3	16,7	30,1	43,6	21. 58. 57,1		21. 58. 16,66	B.
	α Pegasi.	48,8	2,9	16,2	30,1	44,1	58,0	22. 58. 12,0		22. 57. 30,30	B.
	Uranus.	31,6	45,1	58,7	12,2	25,9	39,2	23. 47. 53,0		23. 47. 12,24	B.
	(c) Polaris.	39. 6,3	47.34,3	55.57,4	4.22,5	12.53,7	21.15,6	1. 29. 44,3		1. 4. 24,87	B.
Sept. 27	(f) ☽ 2 L.	25,8	40,8	56,0	11,1	26,1	40,9	6. 57. 56,0		6. 57. 10,95	B.
Sept. 28	(g) ☉ 2 L.	59,1	13,1	26,9	40,1	53,9	7,1	12. 20. 20,9		12. 19. 40,15	B.
	β Aquarii.	8,6	22,0	35,2	49,1	3,1	16,2	21. 24. 30,1		21. 23. 49,19	B.
Sept. 29	(c) α Herculis.	17,4	31,4	45,1	59,1	13,4	27,0	17. 8. 41,0		17. 7. 59,20	B.
	Jupiter 1 L.	35,0	.....	3,9	.....	33,8	.....	19. 0. 3,1	- 0,02	18. 59. 18,93	B.
	Jupiter 2 L. ....	.....	52,7	.....	21,9	.....	51,4	18. 59.	+ 0,03	18. 59. 22,03	B.
	α Aquilæ	57,1	10,9	24,2	37,9	51,7	5,1	19. 44. 19,1		19. 43. 38,00	B.
	β Aquilæ	26,1	39,5	53,1	6,9	20,2	33,8	19. 48. 47,2		19. 48. 6,69	B.
	Σ 2611. sp.	39,1	59,0	19,1	38,4	57,9	17,8	19. 55. 37,2		19. 54. 38,36	B.
	(c) β Pegasi.	56,1	11,9	26,6	41,9	57,2	12,0	22. 57. 26,9		22. 56. 41,80	B.
	(h) Polaris.	39. 2,2	47.32,7	55.53,4	4.19,8	12.54,5	21.13,6	1. 29. 39,4		1. 4. 22,23	B.
	δ Cancri.	32,1	46,1	0,0	14,4	28,9	43,1	8. 36. 57,0		8. 36. 14,51	B.
	☽ 2 L.	50,4	4,5	18,9	33,1	47,4	1,9	8. 57. 16,1		8. 56. 33,18	B.
	α Hydræ.	40,2	54,0	7,4	21,1	34,9	48,1	9. 21. 2,1		9. 20. 21,10	B.
	(i) Regulus.	47,8	1,8	15,0	28,9	43,1	56,7	10. 1. 10,5		10. 0. 29,12	B.
Sept. 30	(h) ☉ 1 L.	2,8	16,3	29,7	43,2	57,1	10,8	12. 25. 24,1		12. 24. 43,43	B.
	☉ 2 L.	11,9	25,4	38,9	52,3	6,0	19,7	12. 27. 33,0		12. 26. 52,45	B.
	(g) Polaris SP.	38.36,2	47. 7,5	55.24,7	3.57,8	12.24,2	20.46,3	13.	+ 4. 12,88	13. 3. 55,66	B.
	(g) Arcturus.	16,0	30,1	44,2	58,6	13,0	27,1	14. 9. 41,7		14. 8. 58,68	B.
Oct. 1	(c) ☉ 1 L.	39,3	52,9	6,2	19,8	33,7	47,0	12. 29. 0,6		12. 28. 19,93	B.
	☉ 2 L.	48,3	1,9	15,3	28,8	42,4	55,9	12. 31. 9,4		12. 30. 28,86	B.
	(c) Saturn 1 L.	1,0	.....	30,1	.....	0,1	.....	18. 36. 28,7	- 0,02	18. 35. 44,95	B.
	Saturn 2 L. ....	.....	18,7	.....	48,1	.....	17,3	18. 36.	+ 0,03	18. 35. 48,06	B.
	(c) Jupiter 1 L.	7,9	.....	37,1	.....	6,5	.....	19. 0. 35,7	- 0,02	18. 59. 51,78	B.
	Jupiter 2 L. ....	.....	25,6	.....	55,0	.....	24,2	19. 0.	+ 0,03	18. 59. 54,96	B.
	θ ¹ Ceti.	59,2	13,1	26,2	40,1	54,0	7,2	1. 17. 21,1		1. 16. 40,12	B.
	α Arietis.	5,9	20,4	34,8	49,5	4,2	18,8	1. 59. 33,9		1. 58. 49,65	B.
Oct. 3	(c) ☉ 1 L.	53,0	6,4	19,7	33,3	47,0	0,6	12. 36. 14,0		12. 35. 33,43	B.
	☉ 2 L.	1,9	15,3	29,0	42,5	56,1	8,8	12. 38. 23,0		12. 37. 42,37	B.
	(k) α Aquarii.	30,1	43,5	57,1	10,7	24,2	37,3	21. 58. 51,0		21. 58. 10,55	B.
	(k) Σ 2878. np.	26,2	40,1	53,3	7,1	20,7	34,1	22. 7. 47,7		22. 7. 7,03	B.
	ρ Aquarii.	42,5	56,2	9,9	23,3	37,1	50,8	22. 13. 4,3		22. 12. 23,44	B.
	(l) Σ 2905.	17,9	31,2	45,2	59,3	13,2	27,0	22. 20. 40,9		22. 19. 59,25	B.
	(k) A.S.C. 2697.	20,8	34,8	48,1	1,7	15,3	28,4	22. 27. 42,1		22. 27. 1,60	B.
	α Pegasi.	42,9	56,7	10,3	24,2	38,1	51,9	22. 58. 5,9		22. 57. 24,29	B.
	λ Piscium.	49,2	3,2	16,2	29,9	43,3	56,8	23. 35. 10,2		23. 34. 29,83	B.
	Uranus.	25,1	39,0	52,1	6,1	19,5	33,1	23. 46. 46,4		23. 46. 5,90	B.
	(m) α Andromedæ.	0,1	15,1	30,3	45,3	0,9	15,4	0. 1. 30,9		0. 0. 45,43	B.
	(g) Polaris.	39. 1,7	47.29,6	.....	4.18,5	12.52,7	21. 9,5	1. 29. 42,3	- 1. 24,66	1. 4. 21,06	B.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) A doubtful observation: partly without the dark-glass. (b) Very cloudy and doubtful. (c) Cloudy.
 (d) Blazing. (e) Cloudy. The observer was doubtful whether he saw the star double. The observation has been
 increased 10°. (f) Cloudy and limb uneven. (g) Cloudy and unsteady. (h) Very unsteady. (i) Haze and
 unsteadiness. (k) Hazy. (l) Very hazy. The observer doubted whether this was the following star. (m) Gives
 a discordant clock-error.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,70	- 4,08	+ 2,59	24,38			0,77	32,88	12 . 10 . 51,89		☉'s center.
			14,77					18 . 34 . 42,49		Saturn's center.
			25,01					18 . 41 . 52,73	- 2,99	Σ 2400.
			37,83					19 . 14 . 5,57	- 3,10	Σ 2504. <i>sf.</i>
			40,17	8,02	32,15			19 . 43 . 7,92	- 3,54	α Aquilæ.
			8,93	36,75	32,18			19 . 47 . 36,69	- 3,60	β Aquilæ.
			30,19					19 . 53 . 57,95	- 3,53	Σ 2613. <i>sf.</i>
			52,56					20 . 0 . 20,32	- 3,34	Σ 2631.
			5,20					20 . 14 . 32,97	- 2,48	Σ 2671. <i>sf.</i>
			50,93	18,59	32,34			21 . 23 . 18,74	- 4,29	β Aquarii.
			16,59	44,37	32,22			21 . 57 . 44,42	- 4,30	α Aquarii.
			30,14	58,01	32,13			22 . 56 . 58,00	- 4,30	α Pegasi.
			12,17					23 . 46 . 40,05		Uranus.
			11,27	39,20	32,07					Polaris.
	- 3,68	+ 2,77	10,77			0,79	31,30	6 . 56 . 39,70		☽ 2 L.
			40,11					12 . 19 . 9,21		☉ 2 L.
			49,17	18,57	30,60					β Aquarii.
			59,07	29,21	29,86			17 . 7 . 29,11	- 2,48	α Herculis.
			20,55					18 . 58 . 50,66		Jupiter's center.
			37,90	7,97	29,93			19 . 43 . 8,03	- 3,49	α Aquilæ.
			6,60	36,70	29,90			19 . 47 . 36,73	- 3,55	β Aquilæ.
			37,95					19 . 54 . 8,09	- 2,49	Σ 2611. <i>sp.</i>
			41,59					22 . 56 . 11,82	- 4,24	β Pegasi.
			9,17	39,82	29,35		29,73	1 . 3 . 39,48	- 56,31	Polaris.
			14,35				0,84	8 . 35 . 44,90	- 2,99	δ Cancri.
			33,05				29,75	8 . 56 . 3,61		☽ 2 L.
			21,10	51,68	29,42		9 . 19 . 51,68	- 2,27	α Hydræ.	
			28,99	59,57	29,42		9 . 59 . 59,59	- 2,46	Regulus.	
			47,90				12 . 25 . 18,58		☉'s center.	
			8,72	39,87	28,85		1 . 3 . 39,43	- 56,36	Polaris SP.	
			58,52	29,27	29,25		14 . 8 . 29,26	- 1,80	Arcturus.	
			24,35				0,87	12 . 28 . 55,97		☉'s center.
			46,58				18 . 35 . 18,42		Saturn's center.	
			53,44				18 . 59 . 25,30		Jupiter's center.	
			40,11				27,96	1 . 16 . 12,20	- 4,48	θ ¹ Ceti.
			49,47	21,58	27,89				α Arietis.	
	- 3,91	+ 3,00	37,88			0,83	27,13	12 . 36 . 11,19		☉'s center.
			10,50	44,31	26,19			21 . 57 . 44,13	- 4,24	α Aquarii.
			6,93					22 . 6 . 40,56	- 4,15	Σ 2878. <i>np.</i>
			23,44					22 . 11 . 57,08	- 4,41	ρ Aquarii.
			59,12					22 . 19 . 32,76	- 4,13	Σ 2905.
			1,55					22 . 26 . 35,20	- 4,32	A.S.C. 2697
			24,16	57,99	26,17			22 . 56 . 57,83	- 4,28	α Pegasi.
			29,78					23 . 34 . 3,47	- 4,48	λ Piscium.
			5,87					23 . 45 . 39,57		Uranus.
			45,20	18,55	26,65			0 . 0 . 18,90	- 4,57	α Andromedæ.
			7,20	40,22	26,98		26,30	1 . 3 . 40,94	- 56,71	Polaris.

 Sept. 30. 2^h, and Oct. 5. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.	
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.		
Oct. 3	(a) β Leonis.....	.....	.....	.....	28,1	42,0	55,6	11.42.9,8	-20,97	11.41.27,90	B.
Oct. 4	(a) \odot 1 L.....	30,3	43,8	57,1	10,9	24,8	37,8	12.39.51,5		12.39.10,88	B.	
	\odot 2 L.....	39,2	52,8	6,3	20,0	33,7	47,1	12.42.0,6		12.41.19,95	B.	
	(a) α Pegasi.....	41,9	56,0	9,9	23,4	37,2	51,0	22.58.5,2		22.57.23,51	B.	
	Piazzi XXIII. 100.	51,3	16,5	41,4	6,7	32,4	56,9	23.24.22,9		23.23.6,87	B.	
	λ Piscium.....	47,7	2,0	15,4	29,1	42,9	56,1	23.35.9,8		23.34.29,00	B.	
	(b) Uranus.....	16,2	30,0	43,2	56,3	10,1	23,3	23.46.37,0		23.45.56,59	B.	
	(c) α Andromedæ....	58,7	14,1	28,9	44,4	59,6	15,0	0.1.30,4		0.0.44,44	B.	
	(d) Polaris.....	38.58,8	47.31,6	55.49,8	4.18,6	12.54,4	21.12,6	1.29.39,5		1.4.20,76	B.	
	(e) β Leonis.....	45,3	59,1	12,8	27,2	41,2	55,1	11.42.9,1		11.41.27,12	B.	
Oct. 5	(f) \odot 1 L.....	7,7	21,4	34,7	48,5	2,4	15,6	12.43.29,1		12.42.48,49	B.	
	\odot 2 L.....	17,2	31,0	44,6	58,1	12,0	25,2	12.45.38,9		12.44.58,15	B.	
	(f) Polaris SP.....	38.35,5	47.1,2	55.21,7	3.55,3	12.22,6	20.39,2	13.29.13,3	-0,19	13.3.52,50	B.	
	(f) Arcturus.....	11,6	25,9	39,8	54,3	8,9	23,2	14.9.37,4		14.8.54,44	B.	
	(a) Saturn 1 L.....	33,9	.....	3,1	.....	33,0	.....	18.37.1,8	-0,02	18.36.17,93	B.
	Saturn 2 L.....	.....	51,8	.....	21,1	.....	50,2	18.36.	+0,03	18.36.21,06	B.
	(b) Jupiter 1 L.....	24,0	.....	52,9	.....	22,2	.....	19.1.51,8	-0,02	19.1.7,70	B.
	Jupiter 2 L.....	.....	41,5	.....	10,8	.....	39,9	19.1.	+0,03	19.1.10,76	B.
	Piazzi XIX. 85....	3,1	16,4	30,0	43,2	57,0	10,4	19.15.24,0		19.14.43,44	B.	
	α Aquilæ.....	51,9	6,1	19,3	33,1	46,4	0,1	19.44.13,9		19.43.32,97	B.	
	β Aquilæ.....	20,4	34,3	48,2	1,4	15,1	28,4	19.48.42,1		19.48.1,41	B.	
	(a) Σ 2613. sf.....	.....	55,2	9,0	.....	.....	50,2	19.55.4,3	-6,81	19.54.22,86	B.
	(a) Σ 2631.....	2,9	.....	31,0	.....	0,2	14,4	20.1.29,0	-5,76	20.0.45,74	B.
	Oct. 6	(f) \odot 1 L.....	46,1	59,6	13,0	26,7	40,6	54,0	12.47.7,5		12.46.26,79	B.
		\odot 2 L.....	55,9	9,4	23,0	36,4	50,1	3,9	12.19.17,3		12.48.36,57	B.
(g) Polaris SP.....		38.35,7	.....	55.24,6	3.56,6	12.26,2	20.44,4	13.29.13,8	-2.48,19	13.3.55,36	B.
(f) Arcturus.....		10,9	25,1	39,2	53,5	7,9	21,9	14.9.36,3		14.8.53,54	B.	
α Aquarii.....		28,1	41,6	54,8	8,3	22,1	35,2	21.58.49,1		21.58.8,46	B.	
(h) Σ 2878.....		24,1	38,0	51,1	4,6	18,5	31,9	22.7.45,7		22.7.4,84	B.	
ρ Aquarii.....		40,6	54,1	7,8	21,1	35,1	48,3	22.13.2,3		22.12.21,33	B.	
(i) Σ 2905.....		.....	29,1	43,3	57,7	.....	.....	22.20.39,3	+0,03	22.19.57,38	B.
A.S.C. 2697.....		19,1	32,5	45,9	59,3	12,9	26,2	22.27.40,0		22.26.59,42	B.	
Piazzi xxii. 219. nf.		29,2	42,9	56,2	9,9	24,0	37,1	22.40.50,8		22.40.10,02	B.	
(c) α Pegasi.....		40,4	54,4	8,2	22,1	36,2	50,1	22.58.4,0		22.57.22,20	B.	
(k) Σ 3012.....		22,9	37,9	51,4	5,7	20,1	34,0	23.20.47,8		23.20.5,69	B.	
λ Piscium.....		47,1	0,8	14,2	27,9	41,1	54,6	23.35.8,2		23.34.27,70	B.	
(a) Uranus.....		58,2	11,9	25,2	38,3	52,2	5,6	23.46.19,2		23.45.38,66	B.	
Piazzi XXIII. 276.		8,7	24,1	39,0	54,4	9,9	25,0	23.59.40,2		23.58.54,47	B.	
(c) α Andromedæ....		57,2	12,3	27,2	43,1	58,1	13,2	0.1.28,6		0.0.42,81	B.	
(a) Polaris.....		38.58,4	47.24,4	55.43,8	4.15,2	12.48,5	21.6,8	1.29.36,7		1.4.16,46	B.	
Oct. 7		(f) \odot 1 L.....	24,8	38,3	51,8	5,5	19,2	32,4	12.50.46,1		12.50.5,44	B.
	\odot 2 L.....	34,1	47,9	1,3	14,9	28,7	42,0	12.52.55,6		12.52.14,93	B.	
	(a) Polaris SP.....	38.34,6	47.6,3	55.19,8	3.56,5	12.22,7	20.44,3	13.29.14,5		13.3.53,91	B.	
Oct. 8	(a) \odot 1 L.....	3,6	17,2	30,9	44,3	58,0	11,4	12.54.25,1		12.53.44,36	B.	
	(a) Jupiter 1 L.....	28,2	.....	56,9	.....	27,1	.....	19.2.56,0	-0,02	19.2.12,03	B.
	Jupiter 2 L.....	.....	46,8	.....	15,9	.....	44,7	19.2.	+0,03	19.2.15,83	B.
Oct. 10	(a) Jupiter 1 L.....	16,5	.....	45,2	.....	14,0	.....	19.3.43,1	-0,02	19.2.59,68	B.
	Jupiter 2 L.....	.....	32,4	.....	1,8	.....	31,2	19.3.	+0,03	19.3.1,83	B.
	(a) α Aquilæ.....	47,3	1,2	15,1	28,5	42,3	56,1	19.44.9,9		19.43.28,63	B.	
	(a) β Aquilæ.....	17,1	30,4	43,9	57,3	11,1	24,3	19.48.37,9		19.47.57,43	B.	
	(l) Σ 3012.....	20,1	34,2	47,7	.....	.....	.....	23.20.44,2	+10,51	23.20.2,06	B.
	(l) Piazzi XXIII. 100.	.....	.....	37,0	2,1	27,3	52,7	23.24.17,6	-25,17	23.23.2,17	B.
	λ Piscium.....	43,7	57,6	11,1	24,2	37,9	51,2	23.35.5,0		23.34.24,39	B.	
	Uranus.....	21,9	35,6	49,1	2,7	16,1	29,3	23.45.43,1		23.45.2,54	B.	
	(m) α Andromedæ....	53,6	9,2	24,1	39,2	55,1	10,1	0.1.25,2		0.0.39,50	B.	

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Cloudy. (b) Hazy. (c) Blazing. (d) Large and unsteady. (e) Faint. (f) Great motion.
 (g) Cloudy and unsteady. (h) Seen double. (i) Very faint. Seen double: this is probably the following star.
 See Oct. 3 and 21. (k) Exceedingly faint. Set down 'sp': it is the sp of two double stars. The observer thought
 the observation was 1^s in defect: it has been increased 1^s. (l) Extremely faint. (m) Hazy and unsteady.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,70	- 3,91	+ 3,00	27,76	1,93	25,83	0,82	26,30	11. 41. 1,86	- 2,13	β Leonis.
			15,39					12. 39. 49,52		\odot 's center.
			23,38	57,99	25,39			22. 56. 57,87	- 4,28	α Pegasi.
			6,25					23. 22. 40,75	- 4,77	Piazzi XXIII. 100.
			28,95					23. 34. 3,46	- 4,48	λ Piscium.
			56,55					23. 45. 31,07		Uranus.
			44,21	18,55	25,66			0. 0. 18,73	- 4,57	α Andromedæ.
			6,90	40,41	26,49		25,48	1. 3. 41,46	- 56,90	Polaris.
			26,98	1,94	25,04	0,80	25,48	11. 41. 1,89	- 2,14	β Leonis.
			53,30					12. 43. 28,24		\odot 's center.
			6,56	40,51	26,05			1. 3. 41,52	- 57,00	Polaris SP.
			54,27	29,25	25,02			14. 8. 29,26	- 1,78	Arcturus.
			19,59					18. 35. 54,73		Saturn's center.
			9,32					19. 0. 44,47		Jupiter's center.
			43,42					19. 14. 18,58	- 3,52	Piazzi XIX. 85.
			32,87	7,88	24,99			19. 43. 8,05	- 3,40	α Aquilæ.
			1,32	36,61	24,71			19. 47. 36,50	- 3,46	β Aquilæ.
			22,75					19. 53. 57,93	- 3,39	Σ 2613. <i>sf.</i>
			45,56					20. 0. 20,75	- 3,18	Σ 2631.
		+ 0,97	31,55			0,79	24,69	12. 47. 7,28		\odot 's center.
			6,02	40,76	25,26			1. 3. 41,76	- 57,25	Polaris SP.
			53,30	29,25	24,05			14. 8. 29,07	- 1,78	Arcturus.
			8,30	44,29	24,01			21. 57. 44,33	- 4,22	α Aquarii.
			4,65					22. 6. 40,69	- 4,13	Σ 2878.
			21,21					22. 11. 57,25	- 4,39	ρ Aquarii.
			57,16					22. 19. 33,20	- 4,10	Σ 2905.
			59,26					22. 26. 35,31	- 4,30	A.S.C. 2697.
			9,89					22. 39. 45,95	- 4,41	Piaz. XXII. 219. <i>nf.</i>
			21,98	57,98	24,00			22. 56. 58,05	- 4,27	α Pegasi.
			5,46					23. 19. 41,54	- 4,37	Σ 3012.
			27,54					23. 34. 3,63	- 4,47	λ Piscium.
			38,51					23. 45. 14,60		Uranus.
			54,18					23. 58. 30,28	- 4,57	Piazzi XXIII. 276.
			42,52	18,55	23,97			0. 0. 18,62	- 4,57	α Andromedæ.
			5,40	40,87	24,53		23,90	1. 3. 41,54	- 57,36	Polaris.
			10,05					12. 50. 46,57		\odot 's center.
			4,76	40,99	23,77			1. 3. 41,29	- 57,48	Polaris SP.
			44,23				23,11	12. 53. 21,54		\odot 1 L.
			13,88					19. 1. 51,40		Jupiter's center.
	- 3,62	+ 2,43	0,80			0,81	21,45	19. 2. 39,99		Jupiter's center.
			28,51	7,80	20,71			19. 43. 7,72	- 3,32	α Aquilæ.
			57,33	36,53	20,80			19. 47. 36,55	- 3,38	β Aquilæ.
			1,91					23. 19. 41,25	- 4,35	Σ 3012.
			1,60					23. 22. 40,94	- 4,72	Piazzi XXIII. 100.
			24,32					23. 34. 3,67	- 4,46	λ Piscium.
			2,48					23. 44. 41,83		Uranus.
			39,28	18,56	20,72			0. 0. 18,64	- 4,58	α Andromedæ.

Oct. 11. 4^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Oct. 10	(a) Σ 19.....	5,1	22,0	38,1	55,0	12,1	28,1	0. 9. 45,0		0. 8. 55,06	B.
	(a) 55 Piscium	19,3	33,9	48,1	2,4	17,2	31,1	0. 32. 45,7		0. 32. 2,53	B.
	Polaris	38.54,5	47.24,8	55.47,8	4.13,5	12.47,3	21. 3,7	1. 29. 36,7		1. 4. 15,47	B.
	(b) Polaris SP.	38.31,6	47. 2,8	55.20,5	....	12.17,8	20.39,8	13. 29. 7,5	+ 0,24	13. 3. 50,24	B.
Oct. 11	(b) \odot 1 L.	2,4	16,1	29,4	43,1	57,0	10,3	13. 5. 23,9		13. 4. 43,17	B.
	\odot 2 L.	12,9	26,3	39,8	53,4	7,2	20,9	13. 7. 34,3		13. 6. 53,54	B.
	(b) Arcturus	6,6	20,8	35,1	49,4	4,0	18,1	14. 9. 32,5		14. 8. 49,50	B.
	(c) ϵ Bootis	41,9	56,8	11,9	27,2	42,6	57,6	14. 39. 13,2		14. 38. 27,32	B.
Oct. 13	(d) α^2 Capricorni	57,9	12,2	25,5	39,2	53,1	7,0	20. 10. 20,9		20. 9. 39,40	B.
	Σ 2708. <i>sf.</i>	12,2	29,7	46,1	3,7	21,2	37,6	20. 33. 55,2		20. 33. 3,67	B.
	θ Capricorni	43,4	57,8	11,9	26,1	40,5	54,2	20. 58. 8,6		20. 57. 26,07	B.
	ς Capricorni	40,3	54,1	8,2	22,1	36,3	50,1	21. 8. 4,3		21. 7. 22,20	B.
	η 2 L.	4,7	19,0	33,1	47,2	1,8	15,4	21. 19. 30,0		21. 18. 47,32	B.
	β Aquarii	56,1	9,7	23,1	36,9	50,5	4,1	21. 24. 17,7		21. 23. 36,87	B.
	ξ Aquarii	1,9	15,5	29,3	42,7	56,3	10,1	21. 30. 23,6		21. 29. 42,77	B.
	λ Capricorni	42,3	56,1	9,9	23,8	37,9	51,3	21. 39. 5,4		21. 38. 23,81	B.
	μ Capricorni	21,6	35,3	49,2	3,1	17,2	31,0	21. 45. 45,1		21. 45. 3,21	B.
	α Aquarii	22,1	35,6	49,1	2,9	16,1	29,5	21. 58. 43,1		21. 58. 2,63	B.
	(d) ρ Aquarii	34,7	48,2	2,1	15,5	29,1	43,0	22. 12. 56,4		22. 12. 15,57	B.
	A.S.C. 2697	13,2	27,1	40,1	54,0	7,7	21,2	22. 27. 34,3		22. 26. 53,94	B.
Oct. 18	(e) \odot 1 L.	58,0	11,7	25,2	38,9	52,8	6,4	13. 31. 20,1		13. 30. 39,02	G.
	\odot 2 L.	8,5	22,3	35,9	49,7	3,4	17,0	13. 33. 30,8		13. 32. 49,66	G.
Oct. 19	β Aquarii	51,8	5,1	18,6	32,2	46,0	59,1	21. 24. 13,0		21. 23. 32,25	G.
	α Aquarii	17,9	31,2	44,3	58,0	11,7	25,1	21. 58. 38,5		21. 57. 58,10	G.
	α Pegasi	30,3	44,0	58,1	12,1	26,1	39,8	22. 57. 53,8		22. 57. 12,03	G.
	Uranus	6,9	20,3	33,8	47,1	0,5	14,2	23. 44.	+ 6,74	23. 43. 47,21	G.
	α Andromedæ	47,0	2,2	17,3	32,6	48,2	3,1	0. 1. 18,5		0. 0. 32,70	G.
	η Piscium	39,4	53,1	7,0	21,1	35,2	48,6	1. 24. 2,7		1. 23. 21,01	G.
	(f) η 1 L.	49,2	3,7	17,9	32,5	47,0	1,0	1. 55. 15,6		1. 54. 32,41	G.
	α Arietis	52,0	6,8	21,1	36,1	50,7	5,1	1. 59. 19,8		1. 58. 35,94	G.
	θ^1 Arietis	57,1	11,4	25,5	39,9	54,5	8,2	2. 10. 22,5		2. 9. 39,88	G.
	ν Arietis	26,8	41,4	56,1	10,3	25,1	39,4	2. 30. 53,9		2. 30. 10,42	G.
Oct. 20	\odot 1 L.	27,7	41,5	55,0	8,9	22,8	36,3	13. 38. 50,1		13. 38. 8,90	G.
	\odot 2 L.	38,9	52,8	6,3	20,0	34,1	47,6	13. 41. 1,5		13. 40. 20,17	G.
	(c) α Coronæ Borealis	45,3	0,2	15,3	31,0	45,8	15,29	0,9	- 7,58	15. 28. 15,50	G.
	α Pegasi	29,7	43,4	57,2	11,4	25,3	39,1	22. 57. 53,2		22. 57. 11,32	G.
	α Andromedæ	46,3	1,8	17,1	32,1	47,9	2,8	0. 1. 18,2		0. 0. 32,31	G.
	Piazzi I. 191. <i>sp.</i>	16,6	30,3	43,9	57,7	11,7	25,0	1. 44. 38,8		1. 43. 57,72	G.
	(g) Σ 194.	1,7	16,4	31,1	45,9	0,9	15,3	1. 51. 30,2		1. 50. 45,93	G.
	(h) α Arietis	51,7	6,3	20,8	35,4	50,1	4,6	1. 59. 19,2		1. 58. 35,44	G.
	θ^1 Arietis	56,6	10,9	25,1	39,5	54,0	8,0	2. 10. 22,3		2. 9. 39,49	G.
	ν Arietis	26,7	41,2	55,4	10,0	24,8	39,0	2. 30. 53,5		2. 30. 10,08	G.
	η 2 L.	19,8	34,3	48,9	3,8	18,5	33,0	2. 46. 47,9		2. 46. 3,74	G.
	α Ceti	39,1	52,8	6,2	19,7	33,3	46,8	2. 55. 0,2		2. 54. 19,73	G.
	δ Arietis	12,1	26,5	40,7	54,9	9,3	23,3	3. 3. 37,5		3. 2. 54,90	G.
	g Arietis	33,9	48,7	3,1	18,2	33,1	47,5	3. 16. 2,3		3. 15. 18,12	G.
	Polaris SP. M.	1.35,2	2.18,4	3. 1,8	3.43,4	4.26,6	5.10,2	13. 5. 51,3	- 1,42	13. 3. 42,42	G.
Oct. 21	(i) \odot 1 L.	13,4	27,1	40,9	54,4	8,7	22,3	13. 42. 36,0		13. 41. 54,69	G.
	\odot 2 L.	25,0	38,8	52,1	6,1	20,2	33,6	13. 44. 47,5		13. 44. 6,19	G.
	Arcturus	59,6	13,9	28,0	42,4	56,9	11,1	14. 9. 25,6		14. 8. 42,50	G.
	α Coronæ Borealis	29,6	44,8	59,8	14,9	30,1	45,1	15. 29. 0,3		15. 28. 14,94	G.
	(k) α Serpentis .....	....	....	30,9	44,7	58,2	11,9	15. 37. 25,4	- 13,55	15. 36. 44,67	G.
	α Ophiuchi	10,1	24,0	37,7	51,5	5,4	19,1	17. 28. 33,0		17. 27. 51,54	G.
	Σ 2738. <i>nf.</i>	45,2	59,2	13,1	27,1	41,4	55,2	20. 52. 9,2		20. 51. 27,20	G.
	Σ 2747. <i>sp.</i>	37,0	54,1	10,5	27,2	44,6	1,2	20. 57. 18,3		20. 56. 27,56	G.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Seen double.
 (c) Cloudy.
 (c) After October 13 Mr Baldrey gave up observing on account of ill health.

(b) Great motion.
 (d) Hazy.

(f) Badly defined.
 (g) Not seen double: no star near this.
 (h) Hurried at wire I.
 (i) Much motion.
 (k) Faint and tremulous.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,70	-3,62	+2,43	54,77				20,64	0 . 8 . 34,13	-4,71	Σ 19.
			2,35					0 . 31 . 41,73	-4,65	55 Piscium.
			3,04	41,52	21,52			1 . 3 . 42,44	-58,01	Polaris.
			2,65	41,54	21,11	0,79	20,63	1 . 3 . 42,45	-58,03	Polaris SP.
			48,32					13 . 5 . 28,12		☉'s center.
			49,32	29,24	20,08					Arcturus.
			27,10	6,86	20,24					ε Bootis.
			39,39	20,92	18,47	0,76	19,09	20 . 9 . 20,94	-3,90	α ² Capricorni.
			3,36					20 . 32 . 44,92	-2,81	Σ 2708. sf.
			26,09					20 . 57 . 7,66	-4,25	θ Capricorni.
			22,22					21 . 7 . 3,80	-4,22	s Capricorni.
			47,32					21 . 18 . 28,90		☽ 1 L.
			36,83	18,39	18,44			21 . 23 . 18,42	-4,09	β Aquarii.
			42,74					21 . 29 . 24,33	-4,15	ξ Aquarii.
			23,80					21 . 38 . 5,39	-4,27	λ Capricorni.
			3,21					21 . 44 . 44,81	-4,34	μ Capricorni.
			2,57	44,21	18,36			21 . 57 . 44,18	-4,14	α Aquarii.
			15,54					22 . 11 . 57,15	-4,32	ρ Aquarii.
			53,87					22 . 26 . 35,49	-4,24	A.S.C. 2697.
	-3,73	+3,68	44,39			0,48	14,93	13 . 31 . 29,73		☉'s center.
			32,28	18,31	13,97		14,45	21 . 23 . 18,26	-4,01	β Aquarii.
			58,10	44,15	13,95			21 . 57 . 44,09	-4,08	α Aquarii.
			11,94	57,89	14,05			22 . 56 . 57,95	-4,18	α Pegasi.
			47,22					23 . 43 . 33,24		Uranus.
			32,50	18,55	13,95			0 . 0 . 18,53	-4,57	α Andromedæ.
			20,90				13,97	1 . 23 . 6,96	-4,78	η Piscium.
			32,30					1 . 54 . 18,37		☽ 2 L.
			35,79	21,82	13,97			1 . 58 . 21,86	-5,01	α Arietis.
			39,75					2 . 9 . 25,82	-4,95	θ ¹ Arietis.
			10,28					2 . 29 . 56,36	-5,03	ν Arietis.
			14,58			0,51	13,99	13 . 39 . 0,88		☉'s center.
			15,32	1,54	13,78			15 . 28 . 1,66	-1,55	α Coronæ Borealis.
			11,23	57,88	13,35			22 . 56 . 57,73	-4,17	α Pegasi.
			32,11	18,54	13,57			0 . 0 . 18,63	-4,56	α Andromedæ.
			57,65				13,48	1 . 43 . 44,21	-4,78	Piazzi I. 191. sp.
			45,77					1 . 50 . 32,33	-5,03	Σ 194.
			35,29	21,83	13,46			1 . 58 . 21,85	-5,02	α Arietis.
			39,36					2 . 9 . 25,93	-4,96	θ ¹ Arietis.
			9,94					2 . 29 . 56,51	-5,04	ν Arietis.
			3,61					2 . 45 . 50,19		☽ 2 L.
			19,70	6,36	13,34			2 . 54 . 6,28	-4,69	α Ceti.
			54,77					3 . 2 . 41,35	-5,01	δ Arietis.
			17,96					3 . 15 . 4,55	-5,15	g Arietis.
			57,02	41,41	15,61	0,52	13,47	1 . 3 . 43,83	-57,90	Polaris SP. M.
			0,49					13 . 42 . 47,32		☉'s center.
			42,37	29,25	13,12			14 . 8 . 29,21	-1,78	Arcturus.
			14,76	1,53	13,23			15 . 28 . 1,63	-1,54	α Coronæ Borealis.
			44,62	31,51	13,11			15 . 36 . 31,49	-2,12	α Serpentis.
			51,45	38,42	13,03			17 . 27 . 38,36	-2,28	α Ophiuchi.
			27,09					20 . 51 . 14,07	-3,35	Σ 2738. nf.
			27,28					20 . 56 . 14,26	-2,88	Σ 2747. sp.

 Oct. 21. 3^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Oct. 21	Σ 2759. <i>sf.</i>	23,4	39,2	55,0	11,1	27,1	42,8	21. 0. 58,4		21. 0. 11,00	G.
	(a) Σ 2813. <i>p.</i> .....	...	37,2	1,9	26,2	51,4	15,0	21. 32. 40,4	- 12,28	21. 31. 26,40	G.
	(b) <i>Piazzi</i> xxi. 248. ...	6,3	30,9	55,4	19,9	45,1	9,1	21. 35. 33,8		21. 34. 20,08	G.
	(c) * N.P.D. 71°. 28'. ...	...	...	0,8	15,0	28,0	41,0	21. 44. 55,0	- 14,19	21. 44. 13,77	G.
	(d) Σ 2882. ....	...	...	23,9	40,9	58,0	14,5	22. 8. 31,6	- 16,84	22. 7. 40,94	G.
	(a) Σ 2905. <i>p.</i>	3,1	17,4	31,9	45,8	0,1	13,4	22. 20. 27,3		22. 19. 45,57	G.
	Uranus	51,4	5,0	18,2	31,8	45,7	...	23. 43.	+ 13,46	23. 43. 31,88	G.
	Polaris M.	2. 3,8	2.45,5	3.27,2	4. 9,4	4.50,8	5.35,0	1. 6. 17,4	+ 1,42	1. 4. 11,29	G.
	α Arietis.	51,1	5,7	20,1	34,9	49,8	4,0	1. 59. 18,8		1. 58. 34,91	G.
	α Ceti	38,9	52,3	5,8	19,1	32,9	46,2	2. 54. 19,30		2. 54. 19,30	G.
	δ Arietis	11,6	25,9	40,0	54,3	8,8	22,9	3. 3. 37,0		3. 2. 54,36	G.
	g Arietis.	33,4	48,2	2,8	17,7	32,5	47,0	3. 16. 2,0		3. 15. 17,66	G.
	) 2 L.	58,2	13,2	28,1	43,2	58,3	13,2	3. 41. 28,4		3. 40. 43,23	G.
	(e) A' Tauri.	56,3	10,9	25,3	39,8	54,5	8,9	3. 56. 23,3		3. 55. 39,86	G.
Oct. 24	α Aquarii.	15,5	29,0	42,1	55,8	9,6	22,8	21. 58. 36,2		21. 57. 55,86	G.
	Σ 2889.	31,7	46,7	1,5	16,2	31,5	46,2	22. 10. 1,4		22. 9. 16,46	G.
	α Pegasi	28,0	41,9	55,8	9,7	23,6	37,4	22. 57. 51,3		22. 57. 9,68	G.
	Uranus	29,6	43,4	56,8	10,4	24,1	...	23. 43.	+ 13,46	23. 43. 10,32	G.
	(f) * N.P.D. 26°. 11'. ...	49,8	20,9	50,4	...	52,3	22,7	23. 57. 53,0	- 0,01	23. 56. 21,51	G.
	α Andromedæ.	44,8	0,0	15,2	30,5	46,0	1,1	0. 1. 16,4		0. 0. 30,57	G.
	(g) Σ 25.	7,6	21,9	35,6	49,5	3,8	17,4	0. 11. 31,6		0. 10. 49,63	G.
Oct. 25	(h) Polaris SP. M. ...	1.31,8	2.12,6	2.56,5	3.42,6	4.24,0	5. 5,5	13. 5. 48,8	- 1,42	13. 3. 38,84	G.
Oct. 26	(i) \odot 1 L.	14,1	28,0	41,7	55,6	9,7	23,2	14. 1. 37,2		14. 0. 55,64	G.
	\odot 2 L.	26,7	40,5	54,0	8,1	22,0	...	14. 3.	+ 13,81	14. 3. 8,07	G.
	(k) Arcturus. ....	...	12,2	26,3	40,6	55,1	9,3	14. 9. 23,8	- 7,17	14. 8. 40,71	G.
	α Coronæ Borealis	27,4	42,7	57,5	12,9	28,0	43,1	15. 28. 58,3		15. 28. 12,84	G.
	(l) * N.P.D. 71°. 28'. <i>sp.</i>	28,	43,	...	11,8	26,	...	21. 44. 54,	+ 2,81	21. 44. 11,37	G.
	α Aquarii.	14,6	28,1	41,3	54,8	8,6	21,9	21. 58. 35,4		21. 57. 54,96	G.
	(m) η Aquarii.	49,0	2,3	15,7	29,2	42,9	56,1	22. 28. 9,8		22. 27. 29,29	G.
	(n) <i>Piazzi</i> xxii. 219. <i>sp.</i>	15,4	29,1	42,5	56,1	9,9	23,2	22. 40. 36,7		22. 39. 56,13	G.
	(o) β Pegasi.	37,2	52,4	7,5	22,6	38,0	...	22. 56.	+ 15,13	22. 56. 22,67	G.
	Uranus.	16,0	29,5	42,9	56,4	10,1	...	23. 43.	+ 13,46	23. 42. 56,44	G.
	(f) * N.P.D. 26°. 11'. ...	...	...	50,	20,5	51,5	22,	23. 57. 52,	- 30,48	23. 56. 20,72	G.
	(m) α Andromedæ.	43,7	59,1	14,2	29,8	45,1	0,1	0. 1. 15,6		0. 0. 29,66	G.
	Polaris, M.	1.58,0	2.41,2	3.22,8	4. 6,0	4.48,6	5.31,0	1. 6. 13,6	+ 1,42	1. 4. 7,31	G.
	(p)) 2 L.	42,9	57,4	11,7	26,1	40,8	55,0	8. 35. 9,5		8. 34. 26,20	G.
	(q) Polaris SP. M. ...	1.33,6	2.16,2	2.58,8	3.42,0	4.25,4	5. 7,4	13. 5. 50,0	- 1,42	13. 3. 40,49	G.
	(r) Spica.	24,5	38,0	51,6	5,4	19,3	32,9	13. 17. 46,8		13. 17. 5,50	G.
Oct. 27	\odot 1 L.	4,5	18,2	32,1	45,9	0,1	13,7	14. 5. 27,5		14. 4. 46,00	G.
	\odot 2 L.	17,1	31,0	44,8	58,5	12,7	26,4	14. 7. 40,3		14. 6. 58,69	G.
	Arcturus. ....	...	11,7	25,9	40,4	54,9	9,0	14. 9. 23,3	- 7,17	14. 8. 40,36	G.
	(s) ϵ Bootis.	32,1	47,4	2,5	17,8	33,2	48,2	14. 39. 3,6		14. 38. 17,83	G.
	(t) Σ 2760.	43,8	1,3	17,3	34,0	50,1	6,4	21. 1.	+ 8,07	21. 0. 33,55	G.
	(s) β Aquarii.	48,1	1,8	15,0	28,7	42,6	56,0	21. 24. 9,6		21. 23. 28,83	G.
	α Hydræ.	21,9	35,7	49,1	2,7	16,6	29,9	9. 20. 43,7		9. 20. 2,80	G.
	) 2 L.	54,2	8,4	22,3	36,6	50,9	4,7	9. 31. 18,9		9. 30. 36,57	G.
	π Leonis.	24,1	38,0	51,4	5,1	18,9	32,4	9. 52. 46,0		9. 52. 5,13	G.
	Regulus.	29,2	43,1	56,9	10,7	24,7	38,2	10. 0. 52,1		10. 0. 10,70	G.
Oct. 28	\odot 1 L.	55,7	9,2	23,2	37,1	51,2	5,0	14. 9. 18,9		14. 8. 37,19	G.
	\odot 2 L.	8,5	22,4	36,1	50,2	4,1	17,8	14. 11. 31,9		14. 10. 50,14	G.
	(s) ϵ Bootis. ....	...	47,0	2,1	17,5	32,7	47,8	14. 39. 3,3	- 7,61	14. 38. 17,46	G.
	α Ophiuchi.	7,4	21,1	35,0	48,8	2,8	16,4	17. 28. 30,2		17. 27. 48,82	G.
	(u) Σ 2606.	51,5	7,7	23,3	39,5	55,9	11,7	19. 53. 27,9		19. 52. 39,65	G.
	Σ 2619. <i>sp.</i>	33,7	53,6	13,7	34,0	54,3	13,8	19. 57. 34,1		19. 56. 33,89	G.
	Σ 2631. <i>sf.</i>	47,1	1,8	15,9	30,3	45,0	59,2	20. 1. 13,7		20. 0. 30,42	G.
	(x) Σ 2651.	1,6	15,5	29,3	43,2	57,4	11,4	20. 7. 25,4		20. 6. 40,40	G.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Faint. (b) Triple. The middle star taken. (c) Too faint to allow of estimating tenths of a second. (d) Perhaps seen double.
 (e) The field badly illumined. (f) Very difficult, so faint. (g) Seen double, but observed as single. (h) Often very cloudy. Coincidence
 reading 24. 132. (i) Clouds and noisy wind. (k) Strong wind; the telescope shaking. (l) Very doubtful: too faint to take tenths. (m) Loud
 wind. (n) 'The *nf* is rather larger.' (o) Much clouded. (p) Very misty. (q) Satisfactory. (r) Faint and unsteady. (s) Cloudy.
 (t) Extremely doubtful on account of clouds. (u) Seemed to be a close double star: a faint object precedes this about 14". (x) Suspected to be
 double.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.	
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.		
- 0,70	- 3,73	+ 3,68	10,78			0,52	13,47	20.59.57,77	- 3,06	Σ 2759. <i>sf.</i>	
			25,84					21.31.12,84	- 2,70	Σ 2813. <i>p.</i>	
			19,52					21.34.6,52	- 2,75	Piazzixxi. 248.	
			13,64					21.44.0,64	- 3,66	* N.P.D. 71°. 28'	
			40,66					22.7.27,67	- 3,59	Σ 2882.	
			45,48					22.19.32,49	- 3,95	Σ 2905. <i>p.</i>	
			31,89					23.43.18,93		Uranus.	
			56,78	41,45	15,33		12,95	1.3.43,85	- 57,94	Polaris M.	
			34,76	21,84	12,92			1.58.21,85	- 5,03	α Arietis.	
			19,27	6,37	12,90			2.54.6,38	- 4,70	α Ceti.	
			54,23					3.2.41,35	- 5,02	δ Arietis.	
			17,50					3.15.4,62	- 5,18	g Arietis.	
			43,08					3.40.30,21		2 L.	
			39,73					3.55.26,86	- 5,07	A' Tauri.	
		+ 4,26	55,89	44,08	11,81	0,37	12,16	21.57.44,07	- 4,01	α Aquarii.	
			16,31					22.9.4,49	- 3,71	Σ 2889.	
			9,61	57,85	11,76			22.56.57,80	- 4,14	α Pegasi.	
			10,36					23.42.58,57		Uranus.	
			20,72					23.56.8,93	- 5,40	* N.P.D. 26°. 11'	
			30,39	18,53	11,86			0.0.18,60	- 4,55	α Andromedæ.	
			49,55				11,79	0.10.37,76	- 4,54	Σ 25.	
	- 2,91		52,77	41,22	11,55	0,38	11,45	1.3.41,53	- 57,71	Polaris SP. M.	
			1,98					14.1.50,75		☉'s center.	
				40,65	29,27			11,38	14.8.29,42	- 1,80	Arcturus.
				12,73	1,51			11,22	15.28.1,53	- 1,52	α Coronæ Borealis.
				11,32					21.44.0,21	- 3,59	* N.P.D. 71°. 28'. <i>sp.</i>
		55,02	44,06	10,96	21.57.43,92			- 3,99	α Aquarii.		
		29,35			22.27.18,26			- 4,13	η Aquarii.		
		56,22			22.39.45,13			- 4,24	Piazzixxi. 219. <i>sp.</i>		
		22,56			22.56.11,47			- 4,04	β Pegasi.		
		56,51			23.42.45,44				Uranus.		
		20,05			23.56.8,98			- 5,36	* N.P.D. 26°. 11'		
		29,54	18,52	11,02	0.0.18,47			- 4,54	α Andromedæ.		
		53,60	41,12	12,48	11,07			1.3.42,55	- 57,61	Polaris M.	
		26,16					8.34.15,23		2 L.		
		54,42	41,01	13,41	0,39		11,07	1.3.43,56	- 57,50	Polaris SP. M.	
		5,62	55,02	10,60		13.16.54,77		- 2,27	Spica.		
		52,48				14.5.41,64			☉'s center.		
		40,30	29,28	11,02		14.8.29,46		- 1,81	Arcturus.		
		17,71	6,84	10,87		14.38.6,88		- 1,59	ε Bootis.		
		33,39				21.0.22,66		- 2,97	Σ 2760.		
		28,93	18,20	10,73		21.23.18,21		- 3,90	β Aquarii.		
		2,90	52,42	10,48	0,39	10,67	9.19.52,38	- 3,01	α Hydræ.		
		36,56					9.30.26,04		2 L.		
		5,14					9.51.54,63	- 3,13	π Leonis.		
		10,69	0,26	10,43			10.0.0,18	- 3,15	Regulus.		
		43,80					14.9.33,36		☉'s center.		
		17,34	6,84	10,50			14.38.6,91	- 1,59	ε Bootis.		
		48,81	38,34	10,47			17.27.38,42	- 2,20	α Ophiuchi.		
		39,48					19.52.29,13	- 2,30	Σ 2606.		
		33,56					19.56.23,21	- 1,63	Σ 2619. <i>sp.</i>		
		30,35					20.0.20,00	- 2,76	Σ 2631. <i>sf.</i>		
		43,36					20.6.33,02	- 2,94	Σ 2651.		

 Oct. 30. 22^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Oct. 28	(a) Σ 2659.....	39,1	57,7	16,0	34,6	53,2	11,5	20.11.30,0		20.10.34,59	G.
	(b) Σ 2720. <i>sp.</i>	42,1	56,2	10,2	24,3	38,2	52,5	20.37.6,7		20.36.24,31	G.
	(c) Σ 2747. <i>sp.</i>	34,0	51,0	7,6	24,6	41,8	58,3	20.57.15,2		20.56.24,64	G.
	β Aquarii.....	47,7	1,4	14,9	28,2	42,0	55,4	21.24.9,1		21.23.28,39	G.
	(d) Σ 2813. <i>f.</i>	11,2	36,2	0,7	25,0	49,9	14,3	21.32.39,1		21.31.25,20	G.
	(e) Σ 2815.....	.....	.....	.....	.....	27,2	51,5	21.34.16,5	- 49,29	21.33.2,44	G.
	Uranus.....	2,8	16,3	29,7	43,1	56,9	.....	23.42.	+ 13,46	23.42.43,22	G.
	Piazzi XXIII. 276.	54,8	10,0	25,1	40,5	55,8	11,0	23.59.26,3		23.58.40,50	G.
	α Andromedæ....	43,0	58,3	13,5	29,0	44,2	59,5	0.1.14,9		0.0.28,92	G.
Oct. 29	(f) \odot 1 L.....	.....	.....	.....	29,0	43,3	56,8	14.13.10,9	- 20,83	14.12.29,17	G.
	\odot 2 L.....	0,5	14,5	28,1	42,2	56,3	10,1	14.15.24,1		14.14.42,26	G.
	ϵ Bootis.....	31,6	46,7	1,9	17,0	32,4	47,4	14.39.2,9		14.38.17,13	G.
	(f) α Coronæ Borealis.	26,2	.....	.....	11,8	27,2	42,1	15.28.57,1	- 9,11	15.28.11,77	G.
	(f) α Aquilæ.....	.....	.....	3,6	17,1	31,0	44,4	19.43.58,2	- 13,61	19.43.17,25	G.
	Σ 2613. <i>sf.</i>	26,3	40,1	53,7	7,4	21,2	34,8	19.54.48,4		19.54.7,42	G.
	* N.P.D. 74°. 59'.	.....	32,0	46,1	0,1	14,3	27,9	19.56.42,0	- 6,97	19.56.0,10	G.
	(g) Σ 2618. <i>np.</i>.....	.....	.....	10,2	24,5	38,4	52,0	19.57.6,0	- 13,93	19.56.24,29	G.
	Σ 2659.....	.....	57,2	15,7	34,0	52,7	11,0	20.11.29,5	- 9,23	20.10.34,12	G.
	(f) β Aquarii.....	47,2	.....	.....	28,0	41,8	55,0	21.24.8,7	- 8,14	21.23.28,00	G.
	α Pegasi.....	26,0	39,9	53,6	7,8	22,0	35,5	22.57.49,5		22.57.7,76	G.
	(h) Σ 3012.....	9,1	23,1	37,1	51,0	5,3	19,1	23.20.33,2		23.19.51,12	G.
	Σ 3024. <i>sf.</i>	42,9	1,4	19,8	38,2	56,9	15,1	23.25.33,6		23.24.38,27	G.
	Uranus.....	56,4	9,8	23,2	36,8	50,3	.....	23.42.	+ 13,46	23.42.36,76	G.
Oct. 31	α Pegasi.....	25,2	39,1	52,9	6,8	21,0	34,8	22.57.48,6		22.57.6,92	G.
	(h) Piazzi XXIII. 100.	34,6	0,0	25,0	50,3	15,9	40,3	23.24.6,0		23.22.50,30	G.
	Uranus.....	43,9	57,3	10,5	24,1	38,0	.....	23.42.	+ 13,46	23.42.24,22	G.
	Piazzi XXIII. 276.	53,3	8,7	23,8	39,1	54,9	9,9	23.59.25,0		23.58.39,25	G.
	α Andromedæ....	41,7	57,1	12,4	27,5	43,2	58,1	0.1.13,7		0.0.27,67	G.
	Polaris SP. M....	1.29,8	2.13,0	2.55,8	3.37,4	4.21,4	5.3,6	13.5.47,4	- 1,42	13.3.36,92	G.
	(i) Arcturus.....	55,1	9,4	23,5	38,0	52,6	6,7	14.9.21,0		14.8.38,05	G.
Nov. 1	(k) \odot 1 L.....	27,7	41,9	55,5	9,6	23,6	37,5	14.24.51,3		14.24.9,56	G.
	\odot 2 L.....	41,6	55,6	9,3	23,4	37,3	51,1	14.27.5,2		14.26.23,36	G.
	ϵ Bootis.....	30,0	45,2	0,4	15,8	31,2	46,2	14.39.1,3		14.38.15,73	G.
	α Coronæ Borealis	24,9	40,1	55,2	10,4	25,8	40,8	15.28.56,0		15.28.10,45	G.
	α Ophiuchi.....	5,7	19,6	33,1	47,0	1,0	14,6	17.28.28,5		17.27.47,07	G.
	* N.P.D. 74°. 59'.	17,1	30,8	44,4	.....	12,6	26,6	19.56.40,4	- 0,01	19.55.58,64	G.
	(g) Σ 2618.....	41,3	54,2	.....	23,0	37,0	51,2	19.57.5,0	- 2,34	19.56.22,94	G.
	Σ 2651. <i>p.</i>	59,7	13,8	27,5	41,8	55,7	9,7	20.7.23,6		20.6.41,68	G.
	* N.P.D. 76°. 6'.	17,5	31,8	45,3	.....	13,4	.....	20.12.41,0	+ 5,53	20.11.59,33	G.
	Σ 2665.....	29,7	43,7	57,2	.....	25,1	.....	20.12.53,0	+ 5,53	20.12.11,27	G.
	(g) Σ 2720. <i>sp.</i>	40,4	54,6	8,4	22,5	36,8	50,4	20.37.5,0		20.36.22,58	G.
	β Aquarii.....	46,0	59,7	12,9	26,6	40,3	53,7	21.24.7,3		21.23.26,64	G.
Nov. 3	α Aquarii.....	11,0	24,4	37,8	51,1	5,0	18,1	21.58.31,6		21.57.51,28	G.
	α Pegasi.....	23,4	37,3	51,1	5,1	19,1	33,0	22.57.46,9		22.57.5,13	G.
	Σ 3024. <i>sf.</i>	40,1	58,9	17,0	35,7	54,1	12,2	23.25.30,9		23.24.35,56	G.
	Uranus.....	25,7	39,1	52,6	5,9	19,6	.....	23.42.	+ 13,46	23.42.6,04	G.
	(i) α Andromedæ....	40,1	55,7	10,3	26,0	41,3	56,6	0.1.11,9		0.0.25,99	G.
Nov. 4	(l) Spica.....	20,9	34,6	48,1	2,0	15,8	29,3	13.17.43,1		13.17.1,97	G.
	(m) \odot 1 L.....	14,6	28,5	42,8	56,8	.....	.....	14.35.	+ 21,02	14.35.56,69	G.
	(n) Σ 2618.....	.....	.....	7,2	21,3	35,0	.....	19.57.3,0	- 10,46	19.56.21,16	G.
	Σ 2651. <i>p.</i>	58,0	12,0	25,8	39,9	54,0	.....	20.6.	+ 13,97	20.6.39,91	G.
	* N.P.D. 76°. 6'.	16,0	.....	43,5	.....	11,6	.....	20.12.39,2	- 0,02	20.11.57,55	G.
	Σ 2665.....	27,8	.....	55,2	.....	23,6	.....	20.12.51,2	- 0,02	20.12.9,43	G.
	β Aquarii.....	44,2	57,4	11,0	24,8	38,4	51,8	21.24.5,6		21.23.24,74	G.
	(o) Σ 2815.....	44,7	9,6	33,9	58,7	23,7	48,1	21.34.12,6		21.32.58,76	G.
	(p) * N.P.D. 71°. 28'. <i>sp.</i>	24,2	37,6	52,0	7,0	21,6	35,4	21.44.50,5		21.44.6,90	G.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) A minute companion precedes. (b) Faint. The other star is nearly in the same vertical. (c) The *nf* is somewhat larger. (d) Very faint. (e) The observer suspected that a minute companion followed. (f) Cloudy. (g) Faint. (h) Not seen double. (i) Disturbed by noise. (k) Great waving. (l) Unsteady. (m) Heavily clouded. (n) Extremely faint. (o) The observer suspected he saw the small star. (p) Very faint and doubtful. This star precedes Σ 2834.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.				
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.					
- 0,70	- 2,91	+ 4,26	34,33			0,39	10,67	20 . 10 . 23,99	- 2,03	Σ 2659.				
			24,27					20 . 36 . 13,93	- 3,12	Σ 2720. <i>sp.</i>				
			24,44					20 . 56 . 14,11	- 2,73	Σ 2747. <i>sp.</i>				
			28,49	18,19	10,30			21 . 23 . 18,17	- 3,89	β Aquarii.				
			24,73					21 . 31 . 14,41	- 2,47	Σ 2813. <i>f.</i>				
			1,95					21 . 32 . 51,63	- 2,50	Σ 2815.				
			43,29					23 . 42 . 33,00		Uranus.				
			40,38					23 . 58 . 30,10	- 4,51	Piazzi xxiii. 276.				
			28,80	18,51	10,29			0 . 0 . 18,52	- 4,53	α Andromedæ.				
			}	35,85			0,40	10,30	14 . 13 . 25,79		☉'s center.			
				17,01	6,85	10,16			14 . 38 . 6,95	- 1,60	ε Bootis.			
				11,66	1,50	10,16			15 . 28 . 1,62	- 1,51	α Coronæ Borealis.			
				17,26	7,48	9,78			19 . 43 . 7,29	- 3,00	α Aquilæ.			
				7,42					19 . 53 . 57,45	- 2,99	Σ 2613. <i>sf.</i>			
				0,07					19 . 55 . 50,10	- 2,87	* N.P.D. 74°. 59'.			
				24,26					19 . 56 . 14,29	- 2,87	Σ 2618. <i>np.</i>			
				33,86					20 . 10 . 23,90	- 2,00	Σ 2659.			
				28,10	18,18	9,92			21 . 23 . 18,16	- 3,88	β Aquarii.			
				7,73	57,80	9,93			22 . 56 . 57,81	- 4,09	α Pegasi.			
				51,08					23 . 19 . 41,17	- 4,23	Σ 3012.			
				38,01					23 . 24 . 28,10	- 4,28	Σ 3024. <i>sf.</i>			
				36,83					23 . 42 . 26,93		Uranus.			
		}		+ 2,79	6,83	57,78			9,05	0,48	9,50	23 . 22 . 40,79	- 4,38	α Pegasi.
				49,82					23 . 42 . 15,18				Piazzi xxiii. 100.	
				24,21					23 . 58 . 30,07			- 4,49	Uranus.	
				39,09									Piazzi xxiii. 276.	
				27,51	18,49	9,02							α Andromedæ.	
			48,53	39,88	8,65			Polaris SP. M.						
			37,94	29,31	8,63	14 . 8 . 29,21	- 1,84	Arcturus.						
			}	16,51					14 . 25 . 7,79				☉'s center.	
				15,57	6,86	8,71	14 . 38 . 6,85	- 1,61	ε Bootis.					
				10,29	1,50	8,79	15 . 28 . 1,59	- 1,51	α Coronæ Borealis.					
				46,99	38,31	8,68	17 . 27 . 38,34	- 2,17	α Ophiuchi.					
				58,55			19 . 55 . 49,95	- 2,82	* N.P.D. 74°. 59'.					
		22,85				19 . 56 . 14,25	- 2,83	Σ 2618.						
		41,58				20 . 6 . 32,98	- 2,87	Σ 2651. <i>p.</i>						
		59,24				20 . 11 . 50,65	- 2,96	* N.P.D. 76. 6'.						
		11,18				20 . 12 . 2,59	- 2,96	Σ 2665.						
		22,48				20 . 36 . 13,89	- 3,06	Σ 2720. <i>sp.</i>						
		}	26,65	18,13	8,52			21 . 23 . 18,08	- 3,83	β Aquarii.				
	}		51,27	43,95	7,32	0,62	7,92	21 . 57 . 43,92	- 3,88	α Aquarii.				
			5,05	57,75	7,30			22 . 56 . 57,72	- 4,04	α Pegasi.				
			35,30					23 . 24 . 27,98	- 4,22	Σ 3024. <i>sf.</i>				
			6,04					23 . 41 . 58,73		Uranus.				
			25,84	18,47	7,37			0 . 0 . 18,54	- 4,49	α Andromedæ.				
			2,00	55,14	6,86			13 . 16 . 55,14	- 2,39	Spica.				
			}	56,75							14 . 35 . 49,91		☉ 1 L.	
				21,08					19 . 56 . 14,32	- 2,78	Σ 2618.			
				39,82					20 . 6 . 33,06	- 2,83	Σ 2651. <i>p.</i>			
				57,47					20 . 11 . 50,71	- 2,91	* N.P.D. 76°. 6'.			
	9,35					20 . 12 . 2,59	- 2,91	Σ 2665.						
	24,76			18,09	6,67	21 . 23 . 18,02	- 3,79	β Aquarii.						
	58,31					21 . 32 . 51,57	- 2,26	Σ 2815.						
	6,80					21 . 44 . 0,06	- 3,46	* N.P.D. 71°. 28'. <i>sp.</i>						

Nov. 8. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Nov. 4	α Aquarii.....	10,3	23,8	37,1	50,7	4,2	17,4	21.58.31,1		21.57.50,65	G.
	(a) α Pegasi.....	23,1	36,6	50,4	4,4	18,5	32,2	22.57.46,1		22.57.44,47	G.
	Σ 3024. <i>sf</i>	40,0	57,8	15,9	34,8	53,9	11,9	23.25.30,6		23.24.34,99	G.
	(b) Uranus.....	19,8	33,3	46,4	0,1	13,9	...	23.42.....	+ 13,46	23.42.0,16	G.
	(c) α Andromedæ....	39,9	54,9	10,1	25,4	40,8	56,0	0.1.11,4		0.0.25,50	G.
Nov. 5	(d) \odot 1 L.....	12,0	26,3	40,1	54,2	8,6	22,5	14.40.36,5		14.39.54,31	G.
	\odot 2 L.....	27,0	40,9	54,7	9,0	23,1	37,2	14.42.51,3		14.42.9,03	G.
	α Coronæ Borealis	23,0	38,0	52,9	8,2	23,6	38,7	15.28.53,8		15.28.8,32	G.
Nov. 8	\odot 1 L.....	9,8	23,8	37,8	52,1	6,3	20,2	14.52.34,3		14.51.52,04	C.
	\odot 2 L.....	25,1	39,2	53,1	7,3	21,6	35,3	14.54.49,9		14.54.7,36	C.
Nov. 12	(e) \odot 1 L.....	18,4	32,4	46,5	0,7	15,3	29,2	15.8.43,4		15.8.0,84	C.
	\odot 2 L.....	34,8	49,0	2,9	17,0	31,5	45,4	15.10.59,8		15.10.17,20	C.
	α Coronæ Borealis	20,8	35,9	50,9	6,1	21,5	36,5	15.28.51,6		15.28.6,19	C.
	β Aquarii.....	41,6	55,2	8,6	22,1	35,8	49,4	21.24.3,1		21.23.22,25	C.
	λ Aquarii.....	49,4	3,2	16,7	30,5	44,2	57,7	22.45.11,3		22.44.30,42	C.
	β Piscium.....	18,0	31,5	45,0	58,4	12,1	25,4	22.56.39,0		22.55.58,49	C.
	γ 1 L.....	1,7	15,4	29,2	42,9	56,8	10,5	23.16.24,3		23.15.42,97	C.
	γ Piscium.....	17,6	31,1	44,3	58,0	11,5	25,1	23.32.38,6		23.31.58,03	C.
	Uranus.....	41,1	54,5	8,0	21,4	35,1	48,4	23.42.1,9		23.41.21,48	C.
	(f) ω Piscium.....	...	53,6	7,2	20,6	34,3	47,6	23.52.1,2	- 6,77	23.51.20,65	C.
	α Andromedæ....	37,1	52,4	7,5	22,8	38,3	53,2	0.1.8,6		0.0.22,84	C.
Nov. 13	Polaris SP. M....	120,8	2.4,8	247,2	332,4	413,8	458,0	13.5.39,6	- 1,42	13.3.29,52	G.
Nov. 14	\odot 1 L.....	27,4	41,5	55,6	9,8	24,4	38,5	15.16.52,7		15.16.9,99	C.
	\odot 2 L.....	44,3	58,5	12,4	26,9	41,2	55,1	15.19.9,4		15.18.26,83	C.
	α Coronæ Borealis	20,0	35,2	50,2	5,3	20,6	35,7	15.28.50,8		15.28.5,40	C.
	(g) α Serpentis.....	54,4	7,9	21,5	...	...	...	15.37.16,2	+ 10,18	15.36.35,18	C.
Nov. 17	Uranus.....	22,0	35,6	49,0	2,4	16,1	...	23.41.....	+ 13,46	23.41.2,48	G.
	α Andromedæ....	35,1	50,6	5,8	21,0	36,3	51,5	0.1.7,0		0.0.21,04	G.
	(h) α Arietis.....	40,9	55,3	10,0	24,4	39,3	53,9	1.59.8,7		1.58.24,64	G.
	α Ceti.....	28,4	42,0	55,1	9,0	22,8	36,0	2.54.49,5		2.54.8,97	G.
	δ Arietis.....	1,7	16,0	30,0	44,1	58,8	13,0	3.3.27,1		3.2.44,39	G.
	γ 1 L.....	41,0	55,8	10,7	25,6	40,6	55,5	3.19.10,4		3.18.25,66	G.
	η Tauri.....	30,1	45,2	59,7	14,4	29,2	43,9	3.38.58,6		3.38.14,44	G.
	A ¹ Tauri.....	46,8	1,0	15,4	30,0	44,7	59,0	3.56.13,5		3.55.30,05	G.
	α Arietis.....	40,5	55,1	9,4	24,2	39,0	53,2	1.59.8,0		1.58.24,20	G.
	α Ceti.....	28,0	41,8	55,1	8,5	22,4	35,5	2.54.49,1		2.54.8,63	G.
Nov. 18	A ¹ Tauri.....	46,1	0,8	15,1	29,6	44,2	58,4	3.56.13,1		3.55.29,62	G.
	γ 2 L.....	25,8	41,0	55,9	11,2	26,5	41,6	4.18.56,9		4.18.11,27	G.
	Aldebaran.....	17,1	31,1	45,0	59,1	13,3	27,1	4.27.41,4		4.26.59,16	G.
	τ Tauri.....	10,2	25,0	39,3	54,0	9,0	23,1	4.33.37,9		4.32.54,07	G.
	(i) ι Tauri.....	4,1	18,2	32,4	47,1	1,8	16,1	4.54.30,7		4.53.47,20	G.
	(k) \odot 1 L.....	25,6	40,1	54,2	8,8	23,3	37,6	15.45.52,0		15.45.8,80	G.
	\odot 2 L.....	44,2	58,8	12,8	27,3	41,8	55,9	15.48.10,6		15.47.27,35	G.
Nov. 24	\odot 1 L.....	4,0	18,4	32,8	47,1	1,9	16,0	15.58.30,6		15.57.47,26	G.
	\odot 2 L.....	22,9	37,4	51,8	6,1	20,7	35,0	16.0.49,7		16.0.6,23	G.
	α Herculis.....	48,0	1,9	15,7	29,8	43,9	57,4	17.8.11,4		17.7.29,73	G.
	α Aquilæ.....	27,2	41,0	54,2	8,1	21,9	35,2	19.43.48,9		19.43.8,07	G.
	β Aquilæ.....	56,2	9,8	23,1	36,9	50,6	4,0	19.48.17,5		19.47.36,87	G.
	(l) Σ 2747. <i>sp</i>	24,0	40,9	57,4	14,3	31,7	48,3	20.57.5,4		20.56.14,57	G.
	β Aquarii.....	38,1	51,5	5,1	18,7	32,2	45,8	21.23.59,3		21.23.18,67	G.
	λ Capricorni.....	24,6	38,5	52,1	6,1	20,1	33,3	21.38.47,2		21.38.5,99	G.
	α Pegasi.....	16,8	30,8	44,6	58,3	12,5	26,2	22.57.40,1		22.56.58,48	G.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

(a) Flaring. (b) Unsteady and badly defined. (c) The temperature was changing fast on the night of Nov. 4. The clock's rate seems to have altered at the same time. (d) Satisfactory. (e) Rise of Temperature on the 12th. (f) Hurried and unsatisfactory. (g) Hazy and unsteady: worth very little. (h) Cloudy. (i) Very cloudy. (k) Great change of clock-rate between this day and the 18th. (l) 'The stars are nearly equal.'

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Fast.	Adopted losing Rate.	Clock Fast at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.		
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.			
- 0,70	- 2,70	+ 2,79	50,64	43,94	6,70	0,37	7,07	21 . 57 . 43,91	- 3,87	α Aquarii.		
			4,39	57,74	6,65			22 . 56 . 57,67	- 4,03	α Pegasi.		
			34,73					23 . 24 . 28,02	- 4,20	Σ 5024. <i>sf.</i>		
			0,16					23 . 41 . 53,46		Uranus.		
			25,35	18,46	6,89			0 . 0 . 18,65	- 4,48	α Andromedæ.		
			1,73			0,22	6,82	14 . 40 . 55,04		\odot 's center.		
				8,18	1,50	6,68				α Coronæ Borealis.		
			59,76			0,30	5,90	14 . 52 . 54,05		\odot 's center.		
				- 2,33	+ 2,85	9,10			0,37	4,70	15 . 9 . 4,63		$\odot$'s center.
			6,07			1,53	4,54			15 . 28 . 1,61	- 1,54	α Coronæ Borealis.
			22,29			17,98	4,31			21 . 23 . 17,92	- 3,68	β Aquarii.
			30,46							22 . 44 . 26,11	- 4,11	λ Aquarii.
			58,49							22 . 55 . 54,14	- 4,04	β Piscium.
			42,97							23 . 15 . 38,63		δ 1 L.
			58,01							23 . 31 . 53,67	- 4,23	ι Piscium.
	21,50							23 . 41 . 17,17		Uranus.		
	20,63							23 . 51 . 16,30	- 4,32	ω Piscium.		
	22,72	18,39	4,33					0 . 0 . 18,39	- 4,41	α Andromedæ.		
	40,10	36,32	3,78	0,38	3,93			Polaris SP. M.				
	- 1,97	+ 6,29	18,49					15 . 17 . 14,80		\odot 's center.		
			5,28	1,54	3,74				α Coronæ Borealis.			
			35,16	31,54	3,62				α Serpentis.			
			2,52			0,40	2,93	23 . 40 . 59,98		Uranus.		
			20,94	18,35	2,59		2,53	0 . 0 . 18,41	- 4,37	α Andromedæ.		
			24,57	21,99	2,58			1 . 58 . 22,07	- 5,18	α Arietis.		
			8,97	6,65	2,32			2 . 54 . 6,49	- 4,98	α Ceti.		
			44,33					3 . 2 . 41,85	- 5,37	δ Arietis.		
			25,60					3 . 18 . 23,12		δ 1 L.		
			14,36					3 . 38 . 11,89	- 5,60	η Tauri.		
			29,99					3 . 55 . 27,53	- 5,57	A ¹ Tauri.		
			24,13	21,99	2,14	0,42	2,10	1 . 58 . 22,06	- 5,18	α Arietis.		
			8,63	6,66	1,97			2 . 54 . 6,58	- 4,99	α Ceti.		
			29,56					3 . 55 . 27,53	- 5,59	A ¹ Tauri.		
			11,19					4 . 18 . 9,17		δ 2 L.		
	59,12	57,08	2,04			4 . 26 . 57,10	- 5,43	Aldebaran.				
	54,00					4 . 32 . 51,98	- 5,65	τ Tauri.				
	47,14					4 . 53 . 45,13	- 5,59	ι Tauri.				
				18,18			0,16	1,60	15 . 46 . 16,68		\odot 's center.	
				57,09			0,01	1,12	15 . 58 . 55,98		\odot 's center.	
				29,83	28,70	1,13			17 . 7 . 28,72	- 1,97	α Herculis.	
8,22				7,16	1,06			19 . 43 . 7,11	- 2,68	α Aquilæ.		
37,03				35,89	1,14			19 . 47 . 35,92	- 2,74	β Aquilæ.		
14,49								20 . 56 . 13,38	- 2,18	Σ 2747. <i>sp.</i>		
18,91				17,83	1,08			21 . 23 . 17,80	- 3,53	β Aquarii.		
6,27								21 . 38 . 5,16	- 3,69	λ Capricorni.		
58,59				57,51	1,08			22 . 56 . 57,48	- 3,80	α Pegasi.		

The levelling having been omitted between Nov. 8 and Nov. 20, the mean between the determinations on those days is used from Nov. 12.

Nov. 20. 22^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Nov. 24	Uranus.....	3,4	17,1	30,2	44,0	57,5	.....	23.41.24,5	+4,48	23.40.43,93	G.
	α Andromedæ	33,4	49,0	4,0	19,4	35,0	50,0	0.1.5,4		0.0.19,46	G.
	(a) Arcturus.....	.....	.....	.....	30,6	45,1	59,3	14.9.13,8	-21,52	14.8.30,68	G.
	ϵ Bootis.....	22,7	37,8	52,9	8,1	23,6	38,8	14.38.54,0		14.38.8,27	G.
	α Coronæ Borealis.	17,2	32,3	47,5	2,7	18,0	33,0	15.28.48,1		15.28.2,68	G.
Nov. 25	(b) \odot 1 L.	18,1	32,8	47,0	1,5	16,2	30,1	16.2.	+7,22	16.2.1,50	G.
	\odot 2 L. ....	.....	.....	.....	20,8	35,2	49,5	16.5.4,2	-21,67	16.4.20,75	G.
	α Herculis.....	48,0	2,0	15,8	29,7	43,8	57,5	17.8.11,5		17.7.29,76	G.
	λ Capricorni	24,8	38,3	52,0	5,9	19,9	33,5	21.38.47,2		21.38.5,94	G.
	α Pegasi.....	16,7	30,7	44,3	58,4	12,5	26,0	22.57.40,1		22.56.58,39	G.
	δ 2 L.	58,3	12,3	25,8	39,8	54,0	7,5	11.1.21,3		11.0.39,86	C.
	δ Leonis.....	3,1	17,7	31,8	46,4	1,2	15,4	11.6.29,9		11.5.46,50	C.
	ϵ Leonis.....	4,3	18,0	31,6	45,5	59,4	12,8	11.16.26,7		11.15.45,47	C.
	(c) τ Leonis.....	.....	.....	39,1	52,6	6,4	20,0	11.20.33,5	-13,49	11.19.52,83	C.
	(c) ν Leonis.....	.....	28,9	42,1	55,6	9,2	22,7	11.29.36,1	-6,73	11.28.55,70	C.
	(d) β Leonis.....	21,8	36,2	50,0	3,7	18,1	31,8	11.41.46,0		11.41.3,94	C.
	α Pegasi.....	16,5	30,4	44,1	58,2	12,2	26,0	22.57.40,0		22.56.58,20	G.
	Uranus.....	0,0	13,5	26,9	40,4	54,1	.....	23.40.	+13,46	23.40.40,44	G.
Nov. 26	α Andromedæ	33,5	48,7	3,8	19,1	34,5	49,8	0.1.5,0		0.0.19,20	G.
	Nov. 29										
	\odot 1 L.	23,2	37,4	51,8	6,4	21,2	35,5	16.19.49,9		16.19.6,49	C.
Nov. 29	(e) \odot 2 L. ....	.....	57,6	12,0	26,4	41,2	55,5	16.22.10,2	-7,25	16.21.26,57	C.
	Nov. 30										
Nov. 30	α Aquilæ.....	26,1	39,9	53,4	7,0	20,9	34,1	19.43.48,0		19.43.7,06	G.
	β Aquilæ.....	55,1	8,8	22,2	35,8	49,4	2,8	19.48.16,3		19.47.35,77	G.
	(f) Σ 2750.....	.....	.....	18,0	31,9	45,7	59,3	20.58.13,2	-13,76	20.57.31,86	G.
	α Aquarii.....	3,1	16,5	30,0	43,5	57,1	10,3	21.58.24,0		21.57.43,50	G.
	α Pegasi.....	15,9	29,8	43,4	57,3	11,5	25,2	22.57.39,1		22.56.57,46	G.
	Uranus.....	55,0	8,6	22,1	35,3	49,1	.....	23.40.	+13,47	23.40.35,49	G.
	α Andromedæ	32,7	48,0	3,1	18,3	33,9	49,0	0.1.4,2		0.0.18,46	G.
	Polaris M.....	1.34,8	2.16,4	3.0,0	3.44,8	4.25,4	5.9,2	1.5.51,8	+1,42	1.3.44,62	G.
Dec. 2	Arcturus.....	45,7	0,0	14,1	28,5	43,0	57,1	14.9.11,8		14.8.28,60	G.
Dec. 3	α Pegasi.....	14,2	28,2	42,0	55,9	10,0	23,8	22.57.37,8		22.56.55,99	G.
	Uranus.....	52,5	6,0	19,1	32,8	46,6	.....	23.40.	+13,47	23.40.32,87	G.
	α Andromedæ	31,0	46,4	1,5	16,7	32,4	47,1	0.1.2,8		0.0.16,85	G.
	Polaris M.....	1.31,2	2.15,0	2.57,4	3.39,0	4.23,0	5.5,4	1.5.49,0	+1,42	1.3.41,42	G.
	α Ceti.....	24,5	38,0	51,6	4,9	18,8	32,1	2.54.45,6		2.54.5,07	G.
Dec. 4	α Coronæ Borealis	14,3	29,5	44,5	59,8	15,0	30,0	15.28.45,1		15.27.59,75	G.
	α Serpentis.....	48,9	2,5	16,0	29,5	43,3	56,5	15.37.10,1		15.36.29,55	G.
Dec. 5	(g) \odot 1 L. ....	.....	33,5	48,0	.....	.....	31,8	16.45.46,4	-7,27	16.45.2,65	C.
	\odot 2 L.	39,6	54,5	9,1	23,5	38,4	52,9	16.48.7,4		16.47.23,63	C.
Dec. 8	β Aquarii.....	34,0	47,2	0,9	14,4	28,1	41,6	21.23.55,1		21.23.14,47	G.
	δ Capricorni.....	37,1	51,0	5,1	19,1	33,4	47,4	21.39.1,6		21.38.19,25	G.
	ϵ Aquarii.....	.....	.....	.....	.....	8,3	22,1	21.58.36,1	-27,86	21.57.54,31	G.
	δ 1 L.	3,0	16,9	30,7	44,6	58,4	12,2	22.13.26,1		22.12.44,56	G.
	η Aquarii.....	34,1	47,9	1,0	14,6	28,3	41,4	22.27.55,1		22.27.14,63	G.
	λ Aquarii.....	41,9	55,8	9,1	22,9	36,5	50,0	22.45.3,8		22.44.22,86	G.
	α Pegasi.....	12,7	26,5	40,5	54,1	8,2	22,1	22.57.36,1		22.56.54,31	G.
	Uranus.....	52,7	6,2	19,8	33,0	46,9	.....	23.40.	+13,47	23.40.33,19	G.
	α Andromedæ	29,2	44,6	0,0	15,1	30,9	45,9	0.1.1,1		0.0.15,26	G.
	(h) Polaris M.....	1.26,2	2.9,8	2.51,0	3.31,0	4.15,8	5.0,4	1.5.44,8	+1,42	1.3.35,56	G.
	α Arietis.....	35,1	50,0	4,3	19,1	33,8	48,2	1.59.2,9		1.58.19,06	G.
Dec. 13	(i) \odot 1 L.	24,0	39,0	53,7	8,2	23,1	37,6	17.20.52,5		17.20.8,30	G.
	\odot 2 L.	46,1	1,0	15,5	30,5	45,2	59,8	17.23.14,6		17.22.30,38	G.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.

(a) Very Cloudy. (b) Cloudy: some wires without the dark glass. (c) Very misty and faint. (d) Not good.
 (e) Hurried at wire II: see Circle observations. (f) Extremely faint. (g) Without dark glass: very obscure
 at some wires. (h) Bad illumination of the field. (i) Misty. A great change of Temperature occurred between
 the 8th and 13th.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,70	- 1,97	+ 6,29	44,16			0,01	- 1,12	23 . 40 . 43,05		Uranus.
			19,46	18,28	- 1,18			0 . 0 . 18,35	- 4,30	α Andromedæ.
			30,75	29,65	- 1,10	0,14	- 1,20	14 . 8 . 29,63	- 2,18	Arcturus.
			8,27	7,12	- 1,15			14 . 38 . 7,15	- 1,87	ϵ Bootis.
			2,70	1,63	- 1,07			15 . 28 . 1,59	- 1,64	α Coronæ Borealis.
			11,47					16 . 3 . 10,36		\odot 's center.
			29,86	28,70	- 1,16			17 . 7 . 28,76	- 1,97	α Herculis.
			6,22					21 . 38 . 5,15	- 3,68	λ Capricorni.
			58,50	57,49	- 1,01			22 . 56 . 57,43	- 3,78	α Pegasi.
			40,06			0,18	- 1,05	11 . 0 . 39,09		γ 2 L.
			46,56					11 . 5 . 45,59	- 3,65	δ Leonis.
			45,60					11 . 15 . 44,63	- 3,49	ι Leonis.
			53,00					11 . 19 . 52,03	- 3,42	τ Leonis.
			55,90					11 . 28 . 54,94	- 3,34	ν Leonis.
			4,04	3,10	- 0,94			11 . 41 . 3,08	- 3,30	β Leonis.
			58,31	57,46	- 0,83			22 . 56 . 57,43	- 3,77	α Pegasi.
			40,67					23 . 40 . 39,80		Uranus.
			19,20	18,26	- 0,94			0 . 0 . 18,33	- 4,28	α Andromedæ.
	- 2,18		16,86			0,20	- 0,50	16 . 20 . 16,50		\odot 's center.
			7,20	7,11	- 0,09		- 0,30	19 . 43 . 7,06	- 2,63	α Aquilæ.
			35,92	35,84	- 0,08			19 . 47 . 35,78	- 2,69	β Aquilæ.
			31,98					20 . 57 . 31,85	- 2,90	Σ 2750.
			43,70	43,62	- 0,08			21 . 57 . 43,58	- 3,55	α Aquarii.
			57,56	57,43	- 0,13			22 . 56 . 57,45	- 3,72	α Pegasi.
			35,71					23 . 40 . 35,61		Uranus.
			18,45	18,21	- 0,24			0 . 0 . 18,35	- 4,23	α Andromedæ.
			29,38	29,15	- 0,23					Polaris M.
		+ 6,15	28,65	29,83	+ 1,18	0,40	+ 0,96	14 . 8 . 29,85	- 2,36	Arcturus.
			56,08	57,40	1,32			22 . 56 . 57,42	- 3,69	α Pegasi.
			33,08					23 . 40 . 34,45		Uranus.
			16,84	18,18	1,34		1,36	0 . 0 . 18,20	- 4,20	α Andromedæ.
			26,39	27,74	1,35					Polaris M.
			5,23	6,71	1,48			2 . 54 . 6,64	- 5,04	α Ceti.
			59,75	1,77	2,02	0,38	1,80			α Coronæ Borealis.
			29,70	31,78	2,08					α Serpentis.
			13,48					16 . 46 . 15,55		\odot 's center.
		5,43	14,66	17,67	3,01	0,30	2,65	21 . 23 . 17,58	- 3,37	β Aquarii.
			19,51					21 . 38 . 22,43	- 3,63	δ Capricorni.
			54,55					21 . 57 . 57,47	- 3,66	ι Aquarii.
			44,76					22 . 12 . 47,69		γ 1 L.
			14,78					22 . 27 . 17,71	- 3,62	η Aquarii.
			23,06					22 . 44 . 25,99	- 3,80	λ Aquarii.
			54,37	57,34	2,97			22 . 56 . 57,31	- 3,63	α Pegasi.
			33,36					23 . 40 . 36,31		Uranus.
			15,23	18,12	2,89		2,95	0 . 0 . 18,18	- 4,14	α Andromedæ.
			21,59	24,50	2,91					Polaris M.
			19,07	21,95	2,88			1 . 58 . 22,04	- 5,14	α Arietis.
	- 2,22	+ 3,66	19,51			0,57	4,09	17 . 21 . 24,01		\odot 's center.

Dec. 5. 23^h, and Dec. 14. 22^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.	m. s.	h. m. s.	
Dec. 13	α Ophiuchi.....	52,4	6,2	20,1	33,9	47,8	1,4	17.28.15,4		17.27.33,89	G.
	β Aquilæ.....	50,7	4,1	17,4	31,0	44,9	58,2	19.48.11,9		19.47.31,17	G.
	β Aquarii.....	32,2	46,0	59,2	12,9	26,8	40,0	21.23.12,97		21.23.12,97	G.
	α Pegasi.....	11,0	24,9	38,5	52,5	6,8	20,3	22.57.34,3		22.56.52,61	G.
	Uranus.....	57,4	10,9	24,2	37,9	51,5	.....	23.40.	+ 13,47	23.40.37,85	G.
	α Andromedæ.....	.....	.....	.....	.....	29,0	44,1	0.0.59,1	- 30,57	0.0.13,50	G.
	η Piscium.....	20,5	34,4	48,1	2,4	16,2	30,1	1.23.44,1		1.23.2,26	G.
	(a) β Arietis.....	.....	.....	41,2	55,6	10,2	24,3	1.46.38,8	- 14,32	1.45.55,70	G.
	(a) α Arietis.....	.....	.....	2,4	17,2	32,0	.....	1.59.1,1	- 10,94	1.58.17,23	G.
Dec. 14	β Aquarii.....	31,9	45,2	58,7	12,4	26,0	39,4	21.23.53,0		21.23.12,37	G.
	ρ Aquarii.....	10,3	23,9	37,4	51,1	5,0	18,4	22.12.32,1		22.11.51,17	G.
	α Pegasi.....	10,3	24,2	38,1	52,0	6,1	19,8	22.57.33,9		22.56.52,05	G.
	Uranus.....	58,7	12,2	25,5	39,1	52,8	.....	23.40.	+ 13,47	23.40.39,13	G.
	α Andromedæ.....	27,1	42,2	57,3	13,0	28,2	43,5	0.0.59,0		0.0.12,90	G.
	(b) Σ 19.....	38,9	55,2	12,0	28,6	45,1	1,8	0.9.18,3		0.8.28,56	G.
	Σ 25.....	.....	.....	.....	32,1	46,1	0,0	0.11.14,0	- 20,93	0.10.32,12	G.
	55 Piscium.....	53,1	7,6	21,9	36,2	50,6	5,1	0.32.19,3		0.31.36,26	G.
	Σ 51. <i>np</i>	33,8	48,0	1,9	16,0	30,1	44,0	0.35.58,2		0.35.16,00	G.
	Polaris M.....	1.18,2	2.0,8	2.44,2	3.26,6	4.10,0	4.52,6	1.5.36,0	+ 1,42	1.3.28,33	G.
	α Arietis.....	33,0	47,6	2,0	16,7	31,6	45,9	1.59.0,4		1.58.16,75	G.
	Σ 221. <i>np</i>	14,3	28,8	43,1	57,2	11,8	25,9	2.1.40,2		2.0.57,33	G.
	ψ Arietis.....	.....	41,0	54,9	9,0	23,2	37,1	2.22.51,5	- 7,04	2.22.9,08	G.
	π Arietis.....	46,9	1,1	15,0	29,0	43,2	57,1	2.41.11,4		2.40.29,10	G.
	γ 1 L.....	43,1	57,9	12,5	27,4	42,4	56,9	2.55.11,8		2.54.27,43	G.
	g Arietis.....	15,5	30,3	45,0	59,8	14,9	29,1	3.15.44,1		3.14.59,82	G.
	d Pleiadum.....	14,1	28,7	43,1	58,0	12,9	27,2	3.37.42,1		3.36.58,02	G.
	η Tauri.....	.....	.....	51,8	6,6	21,4	36,1	3.38.50,9	- 14,69	3.38.6,67	G.
	(c) Polaris SP. M. ...	0.54,4	1.40,0	2.24,2	3.8,0	3.48,4	4.32,0	13.5.15,8	- 1,42	13.3.4,69	G.
	(d) Spica.....	9,2	23,1	36,7	50,0	4,1	17,9	13.17.31,4		13.16.50,34	G.
Dec. 15	\odot 1 L.....	13,6	28,2	43,0	57,8	12,6	27,1	17.29.42,0		17.28.57,76	G.
	\odot 2 L.....	35,6	50,5	5,0	19,8	34,8	49,1	17.32.4,1		17.31.19,85	G.
Dec. 16	α Ceti.....	19,8	33,0	46,6	0,1	13,4	27,0	2.54.40,8		2.54.0,10	G.
	α Herculis.....	40,1	54,0	8,0	21,9	36,1	49,8	17.8.3,8		17.7.21,95	G.
	α Ophiuchi.....	50,0	3,8	17,6	31,2	45,2	59,0	17.28.12,9		17.27.31,38	G.
Dec. 17	(e) \odot 1 L.....	3,3	18,5	33,2	47,9	3,0	17,1	17.38.32,3		17.37.47,90	G.
	\odot 2 L.....	26,2	40,9	55,5	10,3	25,1	39,8	17.40.54,2		17.40.10,28	G.
	α Aquilæ.....	18,9	32,7	46,2	59,9	13,7	27,0	19.43.40,9		19.42.59,90	G.
	(f) β Aquilæ.....	48,1	1,3	15,0	28,6	42,3	55,6	19.48.9,2		19.47.28,59	G.
	Uranus.....	3,4	16,9	30,2	43,8	57,5	.....	23.40.	+ 13,47	23.40.43,83	G.
	(f) Σ 51.....	31,9	45,8	59,9	13,8	28,1	42,0	0.35.56,1		0.35.13,94	G.
	(g) A.S.C. 175.....	3,8	17,4	30,9	44,2	58,1	11,5	1.28.25,2		1.27.44,44	G.
	α Arietis.....	31,0	45,7	0,1	14,8	29,7	44,0	1.58.53,7		1.58.14,86	G.
	Aldebaran.....	8,1	22,1	36,1	50,1	4,3	18,2	4.27.32,2		4.26.50,15	G.
	Rigel.....	13,4	27,1	40,9	54,5	8,2	21,7	5.7.35,1		5.6.54,41	G.
	β Tauri.....	31,9	47,0	2,2	17,8	33,1	48,3	5.17.3,9		5.16.17,75	G.
	ζ Tauri.....	27,9	42,3	56,6	11,1	25,7	40,0	5.28.54,5		5.28.11,15	G.
	(h) γ 1 L.....	.....	.....	54,7	9,8	25,3	40,1	5.52.55,6	- 14,98	5.52.10,12	C.
	(i) γ 2 L.....	49,0	4,3	19,3	34,5	50,2	5,0	5.55.20,4		5.54.34,67	C.
	μ Geminorum....	39,2	54,1	8,3	23,0	37,8	52,1	6.14.6,9		6.13.23,05	G.
	ϵ Geminorum....	27,0	41,9	56,3	11,2	26,5	41,2	6.34.56,2		6.34.11,47	G.
Dec. 18	α Ophiuchi.....	48,9	2,7	16,4	30,2	44,3	58,0	17.28.11,8		17.27.30,32	C.
Dec. 19	\odot 1 L.....	55,3	9,8	24,5	39,4	54,3	8,8	17.47.23,6		17.46.39,39	C.
	\odot 2 L.....	17,6	32,3	47,0	1,8	16,8	31,2	17.49.46,0		17.49.1,81	C.
	α Aquilæ.....	18,0	31,5	45,0	58,8	12,5	25,9	19.43.39,7		19.42.58,77	C.
	(k) Uranus.....	7,7	21,3	34,6	48,2	1,9	15,1	23.41.28,8		23.40.48,23	C.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, ABCDEFG.

(a) Clouds. (b) Not seen double: no star near this. (c) Unsatisfactory, so much motion. (d) Grouped with the preceding clock-stars. (e) Great waving. (f) Faint. (g) Seen double, but observed as single. (h) Hurried and confused. The four last wires have each been increased 10". Correction applied to apparent R.A. of this limb for defect of illumination = - 0^s.09. (i) Uneven. (k) Faint. Wire I was written down hurriedly 13,7, not being taken from the clock.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,70	- 2,22	+ 3,66	33,88	38,29	4,41	0,57	4,09	17. 27. 38,38	- 2,15	α Ophiuchi.
			31,20	35,78	4,58			19. 47. 35,76	- 2,63	β Aquilæ.
			13,05	17,63	4,58			21. 23. 17,65	- 3,33	β Aquarii.
			52,60	57,28	4,68			22. 56. 57,23	- 3,57	α Pegasi.
			37,92					23. 40. 42,57		Uranus.
			13,41	18,05	4,64			0. 0. 18,07	- 4,07	α Andromedæ.
			2,24					1. 23. 6,93	- 4,70	η Piscium.
			55,66					1. 46. 0,36	- 4,96	β Arietis.
			17,17	21,92	4,75			1. 58. 21,88	- 5,11	α Arietis.
						0,60	4,66			
			12,45	17,62	5,17			21. 23. 17,64	- 3,32	β Aquarii.
			51,27					22. 11. 56,48	- 3,57	ρ Aquarii.
			52,04	57,27	5,23			22. 56. 57,27	- 3,56	α Pegasi.
			39,20					23. 40. 44,45		Uranus.
			12,81	18,04	5,23			0. 0. 18,07	- 4,06	α Andromedæ.
			28,41					0. 8. 33,67	- 4,25	Σ 19.
			32,10					0. 10. 37,36	- 4,15	Σ 25.
			56,21					0. 31. 41,48	- 4,33	55 Piscium.
			15,98					0. 35. 21,25	- 4,35	Σ 51. η p.
			16,90	20,69	3,79		5,26	1. 3. 22,19	- 37,18	Polaris M.
			16,69	21,92	5,23			1. 58. 22,00	- 5,11	α Arietis.
			57,29					2. 1. 2,60	- 5,06	Σ 221. η p.
			9,06					2. 22. 14,38	- 5,15	ψ Arietis.
			29,08					2. 40. 34,41	- 5,26	π Arietis.
			27,38					2. 54. 32,71		η 1 L.
			59,76					3. 15. 5,10	- 5,70	g Arietis.
			57,96					3. 37. 3,31	- 5,78	d Pleiadum.
			6,61					3. 38. 11,96	- 5,79	η Tauri.
			16,33	20,41	4,08			1. 3. 21,92	- 36,90	Polaris SP. M.
			50,44	56,17	5,73			13. 16. 56,03	- 3,42	Spica.
						0,66	6,48			
			8,98					17. 30. 14,68		\odot 's center.
			0,13	6,69	6,56					α Ceti.
			21,93	28,87	6,94			17. 7. 28,92	- 2,14	α Herculis.
			31,37	38,32	6,95			17. 27. 38,37	- 2,18	α Ophiuchi.
			59,26					17. 39. 6,27		\odot 's center.
			59,91	7,04	7,13			19. 43. 6,97	- 2,56	α Aquilæ.
			28,62	35,77	7,15			19. 47. 35,68	- 2,62	β Aquilæ.
			43,90					23. 40. 51,06		Uranus.
			13,92				7,17	0. 35. 21,11	- 4,32	Σ 51.
			44,46					1. 27. 51,67	- 4,62	A.S.C. 175.
			14,80	21,90	7,10			1. 58. 22,02	- 5,09	α Arietis.
			50,13	57,39	7,26			4. 26. 57,41	- 5,74	Aldebaran.
			54,51	1,96	7,45			5. 7. 1,81	- 5,07	Rigel.
			17,66	24,89	7,23			5. 16. 24,96	- 6,40	β Tauri.
			11,10					5. 28. 18,41	- 6,05	ζ Tauri.
			10,06					5. 52. 17,29		η 1 L.
			34,61					5. 54. 41,93		η 2 L.
			22,99					6. 13. 30,32	- 6,12	μ Geminorum.
			11,39					6. 34. 18,73	- 6,24	ϵ Geminorum.
	- 2,52	+ 3,91	30,31	38,34	8,03	0,58	7,68	17. 27. 38,41	- 2,20	α Ophiuchi.
			50,77					17. 47. 58,88		\odot 's center.
			58,78	7,04	8,26			19. 43. 6,94	- 2,56	α Aquilæ.
			48,30					23. 40. 56,55		Uranus.

 Dec. 21. 2^h, the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Dec. 19	α Andromedæ....	24,1	39,3	54,6	9,9	25,3	40,5	0. 0. 55,8		0. 0. 9,93	C.
	Polaris.....	37.54,6	46.24,4	54.50,8	3.20,2	11.54,0	20.14,8	1. 28. 48,4		1. 3. 21,03	C.
	(a) Polaris SP.....	37.29,5	46. 0,7	54.23,8	2.53,0	11.26,4	19.52,0	13. 28. 21,8		13. 2. 55,31	C.
	(b) Spica.....	6,3	20,2	33,9	47,7	1,5	.....	13. 17.	+ 13,67	13. 16. 47,59	C.
Dec. 20	(c) α Herculis.....	37,9	51,9	5,7	19,5	33,8	47,5	17. 8. 1,6		17. 7. 19,70	C.
	α Ophiuchi.....	47,8	1,5	15,2	29,0	43,2	56,6	17. 28. 10,6		17. 27. 29,13	C.
Dec. 21	\odot 1 L.....	46,9	1,7	16,4	31,3	46,1	0,6	17. 56. 15,4		17. 55. 31,20	C.
	(d) \odot 2 L.....	9,2	24,0	38,8	53,4	8,4	23,0	17. 58. 37,6		17. 57. 53,48	C.
	α Aquarii.....	53,5	7,2	20,3	34,0	47,5	0,9	21. 58. 14,4		21. 57. 33,97	C.
	(e) Polaris.....	37.53,2	46.26,2	54.47,0	3.21,7	11.50,8	20.14,6	1. 28. 47,0		1. 3. 20,07	C.
	α Arietis.....	28,6	43,3	57,7	12,6	27,1	41,6	1. 58. 56,4		1. 58. 12,47	C.
	(f) α Herculis.....	37,4	51,1	4,9	19,0	33,0	47,0	17. 8. 0,8		17. 7. 19,03	C.
	α Ophiuchi.....	47,1	0,9	14,4	28,5	42,3	56,1	17. 28. 9,9		17. 27. 28,46	C.
Dec. 22	(g) \odot 1 L.....	12,6	27,4	41,7	56,6	11,7	26,3	18. 0. 40,9		17. 59. 56,75	C.
	\odot 2 L.....	35,2	40,9	4,2	19,3	34,0	48,9	18. 3. 3,2		18. 2. 19,25	C.
	β Aquarii.....	.....	40,3	53,5	7,3	21,0	34,5	21. 23. 48,0	- 6,77	21. 23. 7,33	C.
	α Aquarii.....	52,7	6,2	19,6	33,2	46,6	0,1	21. 58. 13,5		21. 57. 33,13	C.
	Uranus.....	15,4	28,8	42,2	56,1	9,5	.....	23. 41.	+ 13,47	23. 40. 55,87	C.
	α Andromedæ....	22,1	37,3	52,2	7,9	23,3	38,3	0. 0. 53,6		0. 0. 7,82	C.
Dec. 23	(h) ϵ Pleiadum.....	59,4	14,4	28,9	43,6	58,7	13,2	3. 36. 28,1		3. 35. 43,75	C.
	Σ 520.....	1,7	16,4	30,7	45,5	0,2	14,7	4. 9. 29,2		4. 8. 45,49	C.
	Σ 535.....	46,7	0,5	14,1	27,8	41,6	55,3	4. 15. 9,0		4. 14. 27,86	C.
	Aldebaran.....	4,5	18,4	32,3	46,5	0,6	14,5	4. 27. 28,6		4. 26. 46,49	C.
	Σ 577.....	41,8	58,7	15,5	32,7	49,6	6,4	4. 32. 23,3		4. 31. 32,57	C.
	(i) Rigel.....	9,9	23,6	36,9	50,8	4,4	17,8	5. 7. 31,6		5. 6. 50,71	C.
	β Tauri.....	28,2	43,5	58,6	14,2	29,5	44,7	5. 17. 0,2		5. 16. 14,13	C.
	Σ 734.....	22,2	35,6	49,0	2,6	16,2	29,4	5. 25. 43,0		5. 25. 2,57	C.
	(k) α Orionis.....	51,0	4,6	18,1	31,7	48,5	58,8	5. 47. 12,5		5. 46. 31,74	C.
	(l) α Herculis.....	.....	.....	.....	.....	31,6	45,4	17. 7. 59,3	- 27,83	17. 7. 17,60	C.
	α Ophiuchi.....	45,7	59,5	13,2	27,1	40,8	54,6	17. 28. 8,6		17. 27. 27,07	C.
Dec. 24	\odot 1 L.....	4,4	19,2	33,6	48,6	3,4	18,1	18. 9. 32,8		18. 8. 48,59	C.
	\odot 2 L.....	.....	41,6	56,1	11,1	25,9	40,5	18. 11. 55,3	- 7,36	18. 11. 11,06	C.
	α Aquilæ.....	14,8	28,5	41,8	55,7	9,3	22,9	19. 43. 36,6		19. 42. 55,66	C.
	Uranus.....	21,4	34,8	48,3	1,8	15,4	.....	23. 41.	+ 13,47	23. 41. 1,81	C.
	α Andromedæ....	20,6	36,1	51,2	6,7	22,0	37,1	0. 0. 52,4		0. 0. 6,59	C.
	(m) Σ 51.....	27,5	41,6	55,4	9,7	23,8	37,8	0. 35. 51,8		0. 35. 9,66	C.
	Polaris M.....	1.10,5	1.52,3	2.35,9	3.18,7	4. 1,7	4.44,3	1. 5. 27,2	- 1,42	1. 3. 17,24	C.
	4 Arietis.....	48,7	2,6	16,7	31,0	44,8	58,7	1. 40. 12,9		1. 39. 30,77	C.
	(n) α Arietis.....	.....	.....	55,8	10,6	25,2	39,6	1. 58. 54,3	- 14,57	1. 58. 10,53	C.
	Σ 291. np.....	28,0	42,2	56,1	10,4	24,7	38,8	2. 32. 53,0		2. 32. 10,45	C.
Dec. 26	(o) α Aquarii.....	50,7	4,6	17,4	31,4	44,9	58,3	21. 58. 11,7		21. 57. 31,28	C.
Dec. 27	α Aquilæ.....	14,0	27,5	41,0	54,8	8,3	22,0	19. 43. 35,5		19. 42. 54,73	C.
	Aldebaran.....	3,2	17,3	31,2	45,3	59,5	13,3	4. 27. 27,4		4. 26. 45,31	C.
	(p) Σ 577.....	40,6	57,4	14,2	31,5	48,3	5,2	4. 32. 22,2		4. 31. 31,34	C.
	(q) Σ 652.....	49,2	2,6	16,0	29,5	43,3	56,4	5. 4. 10,1		5. 3. 29,59	C.
	(r) Rigel.....	8,4	22,5	35,7	49,6	3,2	16,8	5. 7. 30,4		5. 6. 49,52	C.
	(s) β Tauri.....	.....	.....	57,4	12,8	28,3	43,5	5. 16. 58,8	- 15,29	5. 16. 12,87	C.
	α Orionis.....	49,8	3,5	16,9	30,7	44,3	57,7	5. 47. 11,4		5. 46. 30,61	C.
	Σ 840.....	54,7	8,7	22,1	36,2	49,8	3,3	5. 58. 17,1		5. 57. 35,99	C.
	(t) \odot 2 L.....	25,2	40,5	55,3	10,7	26,0	41,2	15. 23. 56,0		15. 23. 10,70	C.
	(x) α Coronæ Borealis.	4,5	19,8	34,7	50,2	5,2	20,3	15. 28. 35,4		15. 27. 50,01	C.
	α Serpentis.....	39,2	52,7	6,2	20,0	33,6	47,0	15. 37. 0,5		15. 36. 19,88	C.
	α Herculis.....	34,8	48,9	2,5	16,7	30,6	44,4	17. 7. 58,6		17. 7. 16,64	C.
	α Ophiuchi.....	34,7	48,7	12,4	26,4	40,2	53,7	17. 28. 7,5		17. 27. 26,23	C.

ILLUMINATED END OF AXIS EAST. Order of Wires for Stars above the Pole, *ABCDEFGH*.
 From α Aquarii Dec. 21 ... WEST. *GFEDCBA*.

- (a) Cloudy at wire IV. (b) Cloudy and unsatisfactory. Grouped with the preceding clock-stars. (c) Faint and uncertain.
 (d) Cloudy at wire VII. Wire I was set down 7,2, and the clock was then looked at. (e) The companion passed wire V at 1^h. 11^m. 26^s. 8.
 (f) Loud wind. (g) Exceedingly tremulous and ragged. (h) Unsteady. (i) Flaring. (k) Wire IV was written down 32,7.
 (l) Not seen earlier on account of its faintness. (m) No star near this. (n) Hurried from wrong setting. (o) Wind very loud.
 (p) Seemed double. A much fainter precedes. (q) Quite a bright star. (r) Flaring very badly. (s) Flaring. Hurried.
 (t) Unsatisfactory. (u) Exceedingly tremulous and faint. (x) The observation was 5^s in excess.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0h.	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
-0,70	-2,52	+3,91	9,83	17,97	8,14	0,58	8,26	0. 0. 18,09	-3,99	α Andromedæ.
			8,62	17,53	8,91			1. 3. 16,91	-34,02	Polaris.
			7,93	17,15	9,22	0,72	8,75	1. 3. 16,51	-33,64	Polaris SP.
			47,69	56,33	8,64			13. 16. 56,27	-3,58	Spica.
			19,67	28,93	9,26			17. 7. 28,93	-2,20	α Herculis.
			29,12	38,37	9,25			17. 27. 38,39	-2,23	α Ophiuchi.
			42,51					17. 56. 51,80		\odot 's center.
			33,99	43,41	9,42			21. 57. 43,40	-3,34	α Aquarii.
			5,52	15,94	10,42			1. 3. 15,02	-32,43	Polaris.
			12,33	21,86	9,53			1. 58. 21,86	-5,05	α Arietis.
			18,95	28,94	9,99			17. 7. 28,99	-2,21	α Herculis.
-0,50	-3,75	+3,75	28,40	38,39	9,99	0,73	9,52	17. 27. 38,45	-2,25	α Ophiuchi.
			8,15					18. 1. 18,22		\odot 's center.
			7,39	17,57	10,18			21. 23. 17,56	-3,27	β Aquarii.
			33,15	43,40	10,25			21. 57. 43,34	-3,33	α Aquarii.
			55,91					23. 41. 6,15		Uranus.
			7,64	17,93	10,29			0. 0. 17,89	-3,95	α Andromedæ.
				43,62		0,63	10,91	3. 35. 54,62	-5,79	ϵ Pleiadum.
				45,37				4. 8. 56,39	-5,93	Σ 520.
			27,83					4. 14. 38,85	-5,54	Σ 535.
			46,42	57,41	10,99			4. 26. 57,45	-5,76	Aldebaran.
			32,33					4. 31. 43,36	-6,79	Σ 577.
			50,81	1,99	11,18			5. 7. 1,85	-5,10	Rigel.
			13,96	24,94	10,98			5. 16. 25,01	-6,45	β Tauri.
			2,62					5. 25. 13,67	-5,31	Σ 734.
		+4,16	31,73	42,79	11,06	0,49	11,00	5. 46. 42,79	-5,60	α Orionis.
			17,53	28,98	11,45			17. 7. 28,88	-2,25	α Herculis.
			27,02	38,41	11,39			17. 27. 38,38	-2,27	α Ophiuchi.
			0,01					18. 10. 11,38		\odot 's center.
			55,65	7,05	11,40			19. 43. 7,05	-2,57	α Aquilæ.
			1,87					23. 41. 13,35		Uranus.
			6,42	17,90	11,48		11,49	0. 0. 17,91	-3,92	α Andromedæ.
			9,59					0. 35. 21,09	-4,24	Σ 51.
			2,08	13,54	11,46			1. 39. 42,22	-4,75	Polaris M.
			30,70					1. 58. 21,93	-5,03	α Arietis.
			10,40	21,84	11,44			2. 32. 21,90	-5,20	Σ 291. <i>np.</i>
			10,36							
			31,32	43,38	12,06	0,24	11,84			α Aquarii.
	-3,93	+4,11	54,70	7,05	12,35	0,21	12,06	19. 43. 6,93	-2,57	α Aquilæ.
			45,23	57,42	12,19			4. 26. 57,54	-5,77	Aldebaran.
			31,07					4. 31. 43,38	-6,81	Σ 577.
			29,60					5. 3. 41,91	-5,37	Σ 652.
			49,60	2,01	12,41			5. 7. 1,91	-5,12	Rigel.
			12,69	24,98	12,29			5. 16. 25,01	-6,49	β Tauri.
			30,59	42,83	12,24	0,24	12,24	5. 46. 42,91	-5,64	α Orionis.
			35,94					5. 57. 48,26	-5,78	Σ 840.
			10,88					15. 23. 23,27		γ 2 L.
			49,83	2,28	12,45			15. 28. 2,22	-2,29	α Coronæ Borealis.
			19,87	32,28	12,41			15. 36. 32,27	-2,89	α Serpentis.
			16,56	29,04	12,48			17. 7. 28,97	-2,31	α Herculis.
			26,17	38,47	12,30			17. 27. 38,58	-2,33	α Ophiuchi.

 Dec. 21. 3^h, the Transit was reversed and Error of Collimation determined.

 Dec. 21. 3^h₄, and Jan. 2. 2^h, (1843) the Transit was levelled.

Month and Day.	NAME OF STAR or PLANET.	I.	II.	III.	IV.	V.	VI.	VII. Wire.	Correction for Wires omitted.	Concluded Transit over the Mean of the seven Wires.	Observer.
		m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	h. m. s.			
Dec. 28	(a) ☉ 1 L.	49,5	4,4	18,5	33,7	48,5	3,1	18.27.17,7		18.26.33,63	C.
	☉ 2 L.	12,0	26,4	41,0	56,2	10,7	25,3	18.29.40,1		18.28.55,96	C.
	(b) α Aquarii.	50,4	4,0	17,3	31,0	44,4	57,6	21.58.11,3		21.57.30,85	C.
	α Pegasi.	3,2	17,1	30,7	44,7	58,6	12,5	22.57.26,5		22.56.44,76	C.
	Uranus.	37,2	50,5	3,9	17,6	31,2	44,5	23.41.	+ 6,74	23.41.17,56	C.
	Polaris M.	1. 6,7	1.49,0	2.32,3	3.15,4	3.57,4	4.41,3	1. 5.24,5	- 1,42	1. 3.13,81	C.
	(c) Σ 274. sp.	34,3	47,8	1,1	14,8	28,3	41,6	2.23.55,2		2.23.14,73	C.
	(d) * N.P.D. 74°. 1'. ..	35,0	49,1	2,8	17,2	31,1	45,0	2.31.59,1		2.31.17,04	C.
	α Ceti.	13,6	27,2	40,5	54,1	7,6	21,2	2.54.34,6		2.53.54,11	C.
	(e) Σ 652.	49,2	2,6	15,9	29,7	43,2	56,3	5. 4. 9,8		5. 3.29,53	C.
	α Pegasi.	2,4	16,4	30,2	44,2	58,1	11,9	22.57.25,8		22.56.44,14	C.
	(f) θ ¹ Arietis.	30,1	44,4	58,6	13,2	27,3	41,5	2. 9.55,8		2. 9.12,98	C.
	Σ 291. np.	26,2	40,3	54,5	9,0	23,1	37,2	2.32.51,3		2.32. 8,80	C.
Dec. 30	α Ceti.	12,8	26,5	39,8	53,5	7,0	20,4	2.54.33,8		2.53.53,40	C.
	Rigel.	7,7	21,4	34,9	48,8	2,4	15,9	5. 7.29,6		5. 6.48,67	C.
	β Tauri.	26,2	41,4	56,6	12,1	27,5	42,7	5.16.58,2		5.16.12,10	C.

ILLUMINATED END OF AXIS WEST. Order of Wires for Stars above the Pole, *GFEDCBA*.

(a) Very unsteady and ill-defined.

(b) Unsatisfactory.

(c) The stars are equal.

(d) No star near this, except a very faint one.

(e) Appeared a close double star: no star of the same magnitude near.

(f) Cloudy.

Error of Collimation.	Level Error.	Meridian Error.	Seconds of Transit corrected.	Tabular R.A. of Known Stars.	Clock apparently Slow.	Adopted losing Rate.	Clock Slow at 0 ^h .	Apparent R.A. from the Observation.	Correction to mean R.A. Jan. 1, 1842.	NAME OF STAR or PLANET.
"	"	"	s.	s.	s.	s.	s.	h. m. s.	s.	
- 0,50	- 3,93	+ 4,11	44,98			0,24	12,24	18 . 27 . 57,40		☉'s center.
			30,88	43,36	12,48			21 . 57 . 43,34	- 3,29	α Aquarii.
			44,70	57,12	12,42			22 . 56 . 57,17	- 3,41	α Pegasi.
			17,61					23 . 41 . 30,09		Uranus.
			58,37	10,84	12,47		12,48			Polaris M.
			14,76					2 . 23 . 27,26	- 4,76	Σ 274. <i>sp.</i>
			16,96					2 . 31 . 29,47	- 5,11	* N.P.D. 74°. 1'.
			54,12	6,64	12,52			2 . 54 . 6,63	- 4,97	α Ceti.
			29,54					5 . 3 . 42,07	- 5,38	Σ 652.
			44,08	57,10	13,02	0,30	12,80	22 . 56 . 57,17	- 3,39	α Pegasi.
			12,87				13,10	2 . 9 . 26,00	- 4,99	θ^1 Arietis.
			8,69					2 . 32 . 21,82	- 5,15	Σ 291. <i>np.</i>
			53,41	6,63	13,22			2 . 54 . 6,55	- 4,96	α Ceti.
			48,75	2,01	13,26			5 . 7 . 1,91	- 5,12	Rigel.
			11,92	24,99	13,07			5 . 16 . 25,09	- 6,50	β Tauri.

APPARENT RIGHT ASCENSIONS
OF
POLARIS AND δ URSÆ MINORIS,
AND
MEAN RIGHT ASCENSIONS OF THE STARS
OBSERVED IN THE YEAR 1842,
AS DEDUCED FROM EACH DAY'S OBSERVATION;
WITH
A CATALOGUE
OF THE
CONCLUDED MEAN RIGHT ASCENSIONS,
JANUARY 1, 1842.

POLARIS.

Day of Observation.	Apparent R.A.	Mean R.A. Jan. 1, 1842.	Day of Observation.	Apparent R.A.	Mean R.A. Jan. 1, 1842.
1842.	<i>h. m. s.</i>	<i>h. m. s.</i>	1842.	<i>h. m. s.</i>	<i>h. m. s.</i>
February 1	1 . 2 . 18,98	1 . 2 . 43,35	June 1	1 . 2 . 19,82	1 . 2 . 43,59
2	17,27	42,27	2	25,16	48,24
5	16,40	43,29	2	20,53	43,25
19	2 . 12,59	48,53	3	19,99	42,34
			3	23,50	45,47
			11	27,85	43,64
March 18	1 . 55,77	42,82	13	28,85	43,25
23	54,96	42,96	13	29,72	43,77
30	53,48	42,12	14	30,50	44,20
30	53,47	42,07			
			July 12	2 . 56,17	46,70
April 1	52,59	41,12			
5	57,46	46,04	August 17	3 . 19,92	42,87
6	54,32	42,94	18	20,52	42,87
6	54,04	42,67	22	23,00	43,18
6	53,86	42,50	23	24,05	43,39
7	53,79	42,43			
7	53,78	42,41	September 12	33,96	42,83
8	55,00	43,61	13	34,15	42,81
8	55,47	44,05	14	35,75	43,88
9	51,70	40,22	15	33,65	41,48
15	55,28	42,38	16	36,08	43,78
15	55,47	42,45	29	39,48	43,17
18	57,19	43,68	30	39,43	43,07
18	56,08	42,50			
19	56,12	42,46	October 3	40,94	44,23
19	57,30	43,55	4	41,46	44,56
20	58,29	44,45	5	41,52	44,52
20	56,27	42,33	6	41,76	44,51
27	58,51	41,92	6	41,54	44,18
28	1 . 59,30	42,48	7	41,29	43,81
28	2 . 0,16	43,13	10	42,44	44,43
29	0,97	43,74	10	42,45	44,42
29	0,00	42,58	20	43,83	45,93
30	0,13	42,52	21	43,85	45,91
			25	41,53	43,82
May 4	2,35	43,09	26	42,55	44,94
9	3,75	41,86	26	43,56	46,06
10	5,28	42,76			
13	6,86	42,78	December 14	22,19	45,01
16	8,67	42,99	14	21,92	45,02
17	11,80	45,62	19	16,91	42,89
19	12,27	45,01	19	16,51	42,87
23	13,18	43,10	21	15,02	42,59
24	15,83	44,98			
24	15,67	44,43			
25	15,60	43,98			
31	19,69	43,79			

δ URSAE MINORIS.

Day of Observation.	Apparent R.A.			Mean R.A. Jan. 1, 1842.	Day of Observation.	Apparent R.A.			Mean R.A. Jan. 1, 1842.
1842.	<i>h.</i>	<i>m.</i>	<i>s.</i>	<i>h.</i> <i>m.</i> <i>s.</i>	1842.	<i>h.</i>	<i>m.</i>	<i>s.</i>	<i>h.</i> <i>m.</i> <i>s.</i>
January 17	18	22	48,72	18 . 23 . 17,27	July 12	18	23	20,88	18 . 23 . 15,76
17			48,78	17,27	13			21,79	16,80
23			49,91	17,76	14			21,52	16,66
26			49,62	17,11	14			21,54	16,76
27			49,53	16,94	15			21,45	16,75
27			49,50	16,82	25			20,48	18,11
31			50,18	16,70	29			18,09	16,47
					29			18,22	16,72
					30			18,30	16,92
February 17			53,32	16,01					
18			54,34	16,77	August 6			16,26	17,00
18			54,13	16,44	8			14,69	15,99
					9			14,72	16,28
					10			14,78	16,75
March 1			56,43	15,56	14			13,19	16,46
3			58,66	17,17	15			13,20	16,65
4			59,06	17,13	16			12,92	16,92
5			59,21	17,12	20			12,39	17,65
6			59,24	16,71	29			7,58	16,01
8			59,50	16,32	30			7,66	16,71
10	22		59,93	16,22	31			8,13	17,39

α ANDROMEDÆ.	d Piscium.	δ Arietis.	Σ 221.
Jan. 24.....0. 0. 13,83 27 14,03 28 13,84	Jan. 17.....0. 12. 28,35 Aug. 23 28,49 Sept. 19 28,45 20 28,36	Dec. 24.....1. 39. 37,47	Jan. 24.....2. 0. 57,42 Dec. 14 57,54
Feb. 1 13,90 14 13,96 16 13,96 18 13,93 19 13,91	55 Piscium.	Piazz I. 191. Jan. 17.....1. 43. 39,37 Oct. 20 39,43	θ^1 Arietis. Oct. 19.....2. 9. 20,87 20 20,97 Dec. 30 21,01
Mar. 10 13,93	Jan. 17.....0. 31. 37,25 Oct. 10 37,08 Dec. 14 37,15	β Arietis. Jan. 19.....1. 45. 55,47 Feb. 15 55,53 16 55,48 July 1 55,43 Dec. 13 55,40	ψ Arietis. Dec. 14.....2. 22. 9,23
April 4 14,11 5 13,98 28 13,93	Σ 51. Jan. 17.....0. 35. 16,87 Dec. 14 16,90 17 16,79 24 16,85	Σ 194. Oct. 20.....1. 50. 27,30	Σ 274. Dec. 28.....2. 23. 22,50
May 1 13,98	β Ceti. Aug. 23.....0. 35. 39,48	α ARIETIS. Jan. 15.....1. 58. 16,89 17 16,80 28 17,06 Feb. 14 16,79 16 16,81 18 16,79 19 16,83 Mar. 10 16,83 29 16,82 April 6 16,99 8 16,77 25 16,66 28 16,95 29 17,02 May 1 16,97 10 16,77 27 16,78 29 17,09 June 2 17,33 July 1 16,59 Oct. 19 16,85 20 16,83 21 16,82 Nov. 17 16,89 18 16,88 Dec. 8 16,90 13 16,77 14 16,89 17 16,93 21 16,81 24 16,90	Σ 285. Jan. 15.....2. 29. 14,58 17 14,48 24 14,55
Aug. 22 13,95	δ Piscium. Aug. 23.....0. 40. 29,66		ν Arietis. Oct. 19.....2. 29. 51,33 20 51,47
Sept. 2 13,77 3 13,71 9 13,77 12 13,92 14 13,97 15 13,99 19 13,94 20 13,91 21 13,85 24 14,04	ϵ Piscium. Sept. 20.....0. 54. 44,88		* N.P.D. 74°. 1'.
Oct. 3 14,33 4 14,16 6 14,05 10 14,06 19 13,96 20 14,07 24 14,05 26 13,93 28 13,99	ϕ Piscium. Jan. 17.....1. 5. 10,86		Dec. 28.....2. 31. 24,36
Nov. 3 14,05 4 14,17 12 13,98 17 14,04 24 14,05 26 14,05 30 14,12	42 Ceti. Jan. 17.....1. 11. 44,04		Σ 291. Jan. 15.....2. 32. 17,03 17 16,59 24 16,77
Dec. 3 14,00 8 14,04 13 14,00 14 14,01 19 14,10 22 13,94 24 13,99	θ^1 Ceti. Oct. 1.....1. 16. 7,72		Dec. 24 16,70 30 16,67
Σ 19.	η Piscium. Oct. 19.....1. 23. 2,18 Dec. 13 2,23		π Arietis. Dec. 14.....2. 40. 29,15
Oct. 10.....0. 8. 29,42 Dec. 14 29,42	A.S.C. 175. Jan. 17.....1. 27. 47,14 24 47,23 Dec. 17 47,05		ϵ Arietis. Feb. 17.....2. 50. 11,32 19 11,43
Σ 25.			α CETI. Jan. 17.....2. 54. 1,54 24 1,70 27 1,70
Oct. 24.....0. 10. 33,22 Dec. 14 33,21			

<i>α Ceti continued.</i>	Σ 535.	τ Tauri.	RIGEL <i>continued.</i>
Feb. 17..... ^{h. m. s.} 2 . 54 . 1,46 18 1,65 19 1,72 July 1 1,54 Oct. 20 1,59 21 1,68 Nov. 17 1,51 18 1,59 Dec. 3 1,60 28 1,66 30 1,59	Feb. 17..... ^{h. m. s.} 4 . 14 . 33,31 21 33,32 25 33,09 Dec. 23 33,31	Feb. 18..... ^{h. m. s.} 4 . 32 . 46,22 19 46,22 Nov. 18 46,33	July 14..... ^{h. m. s.} 5 . 6 . 56,83 15 56,87 Aug. 14 56,85 Dec. 17 56,74 23 56,75 27 56,79 30 56,79
δ Arietis.	ν^1 Tauri.	ω Aurigæ.	Σ 694.
Oct. 20.....3 . 2 . 36,34 21 36,33 Nov. 17 36,48	Feb. 18.....4 . 16 . 51,80 19 51,82	Feb. 15.....4 . 48 . 32,46 18 32,53 19 32,51 21 32,52	Feb. 21.....5 . 14 . 19,33 25 19,06 Mar. 1 18,99
g Arietis.	ALDEBARAN.	ι Tauri.	β TAURI.
Feb. 17.....3 . 14 . 59,36 18 59,45 Oct. 20 59,40 21 59,44 Dec. 14 59,40	Jan. 17.....4 . 26 . 51,69 24 51,75 27 51,91 Feb. 15 51,74 16 51,72 17 51,73 18 51,76 19 51,74 21 51,62 25 51,68 April 26 51,65 27 51,70 28 51,68 29 51,67 May 2 51,60 3 51,63 June 5 51,66 6 51,57 9 51,71 10 51,73 28 51,62 Aug. 1 51,73 4 51,61 Nov. 18 51,67 Dec. 17 51,67 23 51,69 27 51,77	Nov. 18.....4 . 53 . 39,54 Σ 644. Feb. 18.....4 . 59 . 37,71 21 37,74 25 37,52 Σ 652. Mar. 1.....5 . 3 . 36,38 5 36,56 Dec. 27 36,54 28 36,69 RIGEL.	Jan. 24.....5 . 16 . 18,49 25 18,66 27 18,44 Feb. 1 18,52 12 18,50 15 18,44 17 18,54 18 18,52 19 18,61 Mar. 5 18,45 10 18,52 23 18,57 26 18,68 30 18,46 April 16 18,55 22 18,77 23 18,65 26 18,33 27 18,47 28 18,55 29 18,40 30 18,48 May 2 18,47 3 18,58 July 13 18,36 14 18,52 15 18,52 Aug. 14 18,58 15 18,40 Dec. 17 18,56 23 18,56 27 18,52 30 18,59
e Pleiadum.	η Tauri.	Mar. 10 56,88 23 56,79 26 56,80 April 16 56,90 26 56,83 27 56,88 28 57,00 29 56,82 30 56,76 May 2 56,95 3 56,84 9 56,95 June 22 56,91 26 56,84 27 56,72 28 56,81 July 11 56,82 13 56,72	Σ 577.
Dec. 23.....3 . 35 . 48,83	2 Camelopardi.	July 13 56,82 13 56,72	Feb. 21.....5 . 19 . 33,36 25 33,13 Mar. 1 33,16
d Pleiadum.	Feb. 26.....4 . 27 . 28,29 Mar. 1 28,04		
Jan. 17.....3 . 36 . 57,55 Dec. 14 57,53	Σ 520.		
A^1 Tauri.	Dec. 23.....4 . 8 . 50,46		
Oct. 21.....3 . 55 . 21,79 Nov. 17 21,96 18 21,94			

32 Orionis.	α ORIONIS <i>continued.</i>	51 (Hev.) Cephei.	Σ 1083.
Feb. 21..... ^{h. m. s.} 5 . 22 . 19,97	July 22..... ^{h. m. s.} 5 . 46 . 37,15	Aug. 8..... ^{h. m. s.} 6 . 24 . 26,25	Jan. 17..... ^{h. m. s.} 7 . 16 . 15,07
Mar. 1 19,78	23 37,09	9 25,76	Mar. 1 15,02
	26 37,20	20 25,20	5 15,20
	30 37,09		
33 Orionis.	April 22 37,18	12 Lyncis.	CASIOR.
	23 37,09		
Feb. 19..... ^{h. m. s.} 5 . 22 . 57,31	Aug. 14 37,28	Mar. 26..... ^{h. m. s.} 6 . 32 . 15,66	Jan. 15..... ^{h. m. s.} 7 . 24 . 30,57
25 57,13	15 37,15	28 15,45	17 30,52
Mar. 5 57,33	Dec. 23 37,19	29 15,23	25 30,54
	27 37,27		27 30,53
Σ 734.	H Geminorum.	Σ 953.	Mar. 5 30,67
Dec. 23..... ^{h. m. s.} 5 . 25 . 8,36	Jan. 24..... ^{h. m. s.} 5 . 54 . 31,19	Mar. 22..... ^{h. m. s.} 6 . 32 . 30,83	6 30,63
	25 31,13	23 30,89	22 30,70
λ Orionis.	Σ 840.	ϵ Geminorum.	23 31,00
Mar. 1..... ^{h. m. s.} 5 . 26 . 26,27	Mar. 1..... ^{h. m. s.} 5 . 57 . 42,16	Feb. 21..... ^{h. m. s.} 6 . 34 . 12,62	28 30,62
5 26,21	5 42,31	Mar. 21 12,49	29 30,63
10 26,01	10 42,17	Aug. 30 12,47	30 30,66
ι Orionis.	Dec. 27 42,48	Dec. 17 12,49	April 4 30,57
Jan. 17..... ^{h. m. s.} 5 . 27 . 42,35	Σ 848.	Sirius.	6 30,49
27 42,46	Mar. 1..... ^{h. m. s.} 5 . 59 . 32,43	Aug. 14..... ^{h. m. s.} 6 . 38 . 11,34	8 30,64
29 42,31	5 32,68	15 11,30	9 30,60
ζ Tauri.	10 32,61	ζ Geminorum.	11 30,57
Dec. 17..... ^{h. m. s.} 5 . 28 . 12,36	η Geminorum.	Feb. 21..... ^{h. m. s.} 6 . 54 . 44,14	12 30,59
Σ 757.	Aug. 30..... ^{h. m. s.} 6 . 5 . 20,39	April 16 44,11	16 30,49
Feb. 25..... ^{h. m. s.} 5 . 30 . 1,81	μ Geminorum.	Aug. 30 44,04	May 28 30,63
Mar. 1 1,65	Jan. 24..... ^{h. m. s.} 6 . 13 . 24,27	Σ 1033.	June 1 30,64
10 1,89	25 24,23	Mar. 21..... ^{h. m. s.} 7 . 2 . 17,86	3 30,53
52 Orionis.	Mar. 21 24,09	23 17,83	6 30,57
Feb. 25..... ^{h. m. s.} 5 . 39 . 30,93	April 16 24,02	26 17,96	7 30,74
Mar. 1 30,75	Dec. 17 24,20	Σ 1037.	8 30,46
5 30,95	15 Geminorum.	Feb. 25..... ^{h. m. s.} 7 . 2 . 58,80	Aug. 8 30,44
C Tauri.	Feb. 25..... ^{h. m. s.} 6 . 18 . 21,49	Mar. 1 58,97	16 30,48
Feb. 19..... ^{h. m. s.} 5 . 43 . 23,96	Mar. 5 21,65	3 59,10	17 30,57
α ORIONIS.	10 21,57	5 58,82	22 30,31
Feb. 12..... ^{h. m. s.} 5 . 46 . 37,24	* N.P.D. 69° 5'.	δ Geminorum.	Σ 1116.
17 37,23	Mar. 10..... ^{h. m. s.} 6 . 19 . 46,10	Jan. 25..... ^{h. m. s.} 7 . 10 . 40,91	Feb. 25..... ^{h. m. s.} 7 . 25 . 43,57
19 37,22	* N.P.D. 69° 7'.	27 40,86	26 43,55
21 37,29	Feb. 25..... ^{h. m. s.} 6 . 21 . 1,91	April 16 41,07	Mar. 1 43,42
Mar. 1 37,15			ν Geminorum.
5 37,19			Feb. 21..... ^{h. m. s.} 7 . 26 . 10,78
10 37,13			Procyon.
			Jan. 15..... ^{h. m. s.} 7 . 31 . 1,75
			17 1,80
			25 1,64
			27 1,73
			Mar. 6 1,80
			18 1,68
			22 1,74
			28 1,84
			29 1,94
			30 1,67

PROCYON <i>continued.</i>			POLLUX <i>continued.</i>			Σ 1200.			ε Hydræ.		
April	4.....	7. 31. 1,66 6 1,50 8 1,59 9 1,58 11 1,56 12 1,88 16 1,62 19 1,53 20 1,59 22 1,56 23 1,60	April	4.....	7. 35. 38,43 6 38,34 8 38,31 9 38,36 11 38,23 16 38,26 19 38,36 20 38,24 22 38,21 23 38,33	Mar.	29.....	8. 4. 20,58 30 20,73	Feb.	26.....	8. 38. 24,20
May	9 1,64 13 1,58 28 1,70 30 1,64 31 1,76	May	9 38,40 13 38,39 16 38,35 28 38,38 30 38,24 31 38,66	Feb.	21.....	8. 11. 7,99	λ Cancri.			Mar.	10 24,27 23 24,37
June	1 1,77 2 1,64 3 1,66 6 1,69 7 1,79 8 1,69 9 1,83 10 2,00 11 1,76 22 1,63	June	1 38,30 2 38,18 3 38,24 6 38,44 7 38,21 8 38,16 9 38,31 10 38,10 11 38,14	Feb.	21.....	8. 17. 15,42	ν ¹ Cancri.			Mar.	10.....8. 43. 13,32 30 13,71
July	12 1,72 14 1,88 15 1,88	Aug.	16 38,38 17 38,37 22 38,32 23 38,30 30 38,21	Jan.	25.....	8. 22. 34,57 27 34,90	θ Cancri.			April	4 13,81
Aug.	16 1,70 17 1,69 22 1,67 23 1,97 30 1,67	5 Argûs.			Σ 1244.	ι ² Cancri.			Σ 1289.		
Piazzi VII. 170.			Mar. 1.....7. 40. 32,65 23 32,91 28 32,80			April	9.....	8. 27. 4,55	April	6.....8. 44. 9,52 8 9,64 9 9,48 11 9,71	
Feb. 25.....7. 31. 43,19 26 43,11			14 Canis Minoris.			A.S.C. 1044.			April	15.....8. 44. 35,38 16 35,39 19 35,31	
Mar. 1 43,17 23 43,45			Mar. 1.....7. 50. 8,96 5 9,02 18 8,92			Feb. 26.....8. 27. 26,82			* N.P.D. 45°. 44'.		
κ Geminorum.			ω ¹ Cancri.			Mar. 10 26,79 23 26,84 28 26,86 29 26,62 30 26,81			April	8.....8. 45. 31,91 9 31,64	
Jan. 25.....7. 34. 54,01 27 54,01			Feb. 21.....7. 51. 21,64			Piazzi VIII. 131. <i>p.</i>			ι Ursæ Majoris.		
POLLUX.			A.S.C. 985.			April 6.....8. 32. 12,53			Feb. 26.....8. 48. 21,66		
Jan. 15.....7. 35. 38,33 17 38,27			Mar. 1.....7. 54. 2,46 5 2,47 18 2,62			Piazzi VIII. 131. <i>f.</i>			Mar. 5 21,66 10 21,85		
Feb. 21 38,38 25 38,40			11 Cancri.			April 4.....8. 32. 12,95 8 12,85			α ² Cancri.		
Mar. 1 38,32 5 38,45 6 38,30 18 38,38 22 38,32 23 38,47 28 38,46 29 38,35 30 38,41			Feb. 26.....7. 59. 9,40			Σ 1263.			Feb. 21.....8. 49. 50,51		
			Mar. 1 9,05 5 9,22 18 9,11			Mar. 10.....8. 34. 43,62 23 43,49			April 19 50,36		
			ζ Cancri.			April 9 43,37 11 43,34			σ ⁴ Cancri.		
			Feb. 21.....8. 3. 8,71			δ Cancri.			Mar. 1.....8. 51. 41,94 18 41,86 28 41,87		
						Jan. 25.....8. 35. 41,75 27 41,74			σ ² Ursæ Majoris.		
						April 19 41,81			Mar. 30.....8. 56. 24,41		
						Sept. 29 41,91			April 4 24,19 11 24,00		
						ι Cancri.			Σ 1311.		
						April 11.....8. 37. 7,57 16 7,52 20 7,34			April 16.....8. 58. 20,00 19 19,86 20 19,92		

* N.P.D. 68°. 22'.	Σ 1348.	Σ 1379.	Σ 1417.
Feb. 21..... ^{h. m. s.} 8 . 58 . 40,78	April 8..... ^{h. m. s.} 9 . 16 . 9,21 11 8,71	Mar. 1..... ^{h. m. s.} 9 . 36 . 52,62 5 52,46 10 52,95	April 19..... ^{h. m. s.} 10 . 6 . 29,40 20 29,32 21 29,26
Σ 1312.	Σ 1355.	Σ 1396.	γ Leonis.
April 6.....8 . 29 . 0,77 8 0,99 9 0,91	April 4.....9 . 18 . 57,75 6 57,64 8 57,80	April 19.....9 . 47 . 55,02 20 54,97 21 54,92	Jan. 27.....10 . 11 . 15,08
Σ 1318.	α HYDRÆ.	π Leonis.	Σ 1426.
April 6.....9 . 2 . 56,87 11 57,02 14 56,87	Feb. 21.....9 . 19 . 49,40 25 49,52	April 19.....9 . 51 . 51,50 20 51,55	Mar. 10.....10 . 12 . 15,81 28 15,73
* N.P.D. 68°. 41'.	Mar. 1 49,56 5 49,41 10 49,44 28 49,22 30 49,43	Oct. 27 51,50	Piazzi X. 58.
Feb. 21.....9 . 3 . 42,21	April 9 49,58 11 49,42 15 49,45 16 49,60 19 49,51 20 49,39 22 49,33 23 49,36 25 49,29 27 49,50 28 49,31 29 49,27 30 49,24	REGULUS.	April 23.....10 . 15 . 57,98 25 58,02 30 57,87
Σ 1322.	May 2 49,30 16 49,32	Jan. 27.....9 . 59 . 56,97	44 Leonis.
April 4.....9 . 3 . 51,12 8 51,21 9 51,15	June 28 49,38	Feb. 25 57,03	April 19.....10 . 16 . 55,34 21 55,29 22 55,52
Σ 1333.	July 5 49,37	Mar. 1 57,07 5 57,18 10 57,12 28 57,13 29 56,93 30 57,28	Piazzi X. 67.
April 4.....9 . 8 . 40,41 6 40,22 8 40,35	Sept. 29 49,41	April 4 57,21 6 57,31 8 57,46 9 57,20 11 57,19 15 57,09 16 57,13 19 57,17 20 57,29 21 (57,51) 22 57,21 23 57,03 25 57,09 27 57,20 28 57,01 29 57,14 30 57,13	April 27.....10 . 17 . 15,45 28 15,44 29 15,33
* N.P.D. 68°. 31'.	Oct. 27 49,37	May 2 57,09 4 57,17 16 56,92 23 56,98 30 57,06	Σ 1439.
Feb. 21.....9 . 9 . 36,76	Σ 1365.	June 13 57,09 14 57,19 15 57,04 27 57,18	April 19.....10 . 21 . 27,16 21 27,08 22 27,21
Σ 1338.	April 4.....9 . 23 . 21,79 6 21,76 8 22,07	July 5 57,05	ρ Leonis.
April 2.....9 . 11 . 4,21 11 4,18 14 3,96	14 Leonis.	Aug. 30 57,14	Jan. 27.....10 . 24 . 29,70
39 Lyncis.	Jan. 27.....9 . 32 . 42,65	Sept. 18 57,10 19 56,89 29 57,13	Σ 1447.
April 6.....9 . 11 . 43,69 9 43,71 15 43,56	Feb. 24 42,74	Oct. 27 57,03	Mar. 10.....10 . 25 . 6,66 28 6,46
21 Ursæ Majoris.	May 16 42,63		48 Leonis.
Mar. 5.....9 . 14 . 23,80 10 23,91 28 23,83	Piazzi IX. 161.		Feb. 25.....10 . 26 . 33,07 26 33,12
* N.P.D. 68°. 58'.	April 6.....9 . 35 . 15,37 8 15,24 9 15,21		Σ 1457.
Feb. 21.....9 . 14 . 51,88			April 27.....10 . 30 . 29,31 29 29,32
			May 2 29,44

Σ 1460.	δ Leonis.	A.S.C. 1359.	β Virginis.
April 23..... $\begin{smallmatrix} h. & m. & s. \\ 10 & 31 & 20,34 \\ 25 & & 20,09 \\ 30 & & 20,09 \end{smallmatrix}$	Nov. 25..... $\begin{smallmatrix} h. & m. & s. \\ 11 & 5 & 41,94 \end{smallmatrix}$	April 28..... $\begin{smallmatrix} h. & m. & s. \\ 11 & 27 & 58,38 \\ 29 & & 58,49 \\ 30 & & 58,36 \end{smallmatrix}$	Feb. 25..... $\begin{smallmatrix} h. & m. & s. \\ 11 & 42 & 27,79 \\ 26 & & 27,75 \end{smallmatrix}$
* N.P.D. $89^{\circ} . 27'$.	Σ 1521.		April 22 28,03
April 4..... $\begin{smallmatrix} 10 & 33 & 5,42 \\ 6 & & 5,24 \\ 8 & & 5,74 \\ 9 & & 5,31 \end{smallmatrix}$	April 30..... $\begin{smallmatrix} 11 & 6 & 52,09 \end{smallmatrix}$	ν Leonis.	June 15 27,96
Σ 1464.	Σ 1527.	Feb. 25..... $\begin{smallmatrix} 11 & 28 & 51,68 \\ 26 & & 51,49 \end{smallmatrix}$	Σ 1582.
April 27..... $\begin{smallmatrix} 10 & 33 & 29,91 \\ 28 & & 29,91 \\ 29 & & 30,22 \end{smallmatrix}$	April 20..... $\begin{smallmatrix} 11 & 10 & 43,12 \\ 22 & & 43,06 \\ 27 & & 43,02 \\ 28 & & 43,11 \end{smallmatrix}$	April 22 51,67	April 29..... $\begin{smallmatrix} 11 & 47 & 52,96 \end{smallmatrix}$
34 Sextantis.	Σ 1530. <i>p</i> .	May 19 51,45	May 2 53,57
April 20..... $\begin{smallmatrix} 10 & 34 & 27,90 \\ 21 & & 28,17 \end{smallmatrix}$	Mar. 18..... $\begin{smallmatrix} 11 & 11 & 43,96 \end{smallmatrix}$	Nov. 25 51,60	4 53,13
40 Sextantis.	Σ 1530. <i>f</i> .	A.S.C. 1364.	Σ 1585.
April 20..... $\begin{smallmatrix} 10 & 41 & 16,66 \\ 21 & & 16,66 \\ 22 & & 16,74 \end{smallmatrix}$	April 4..... $\begin{smallmatrix} 11 & 11 & 44,56 \end{smallmatrix}$	Mar. 18..... $\begin{smallmatrix} 11 & 30 & 19,83 \end{smallmatrix}$	April 30..... $\begin{smallmatrix} 11 & 48 & 29,64 \end{smallmatrix}$
d Leonis.	σ Leonis.	April 6 19,80	May 13 29,65
April 20..... $\begin{smallmatrix} 10 & 52 & 24,00 \\ 21 & & 23,96 \end{smallmatrix}$	May 19..... $\begin{smallmatrix} 11 & 12 & 59,13 \end{smallmatrix}$	Σ 1561.	16 29,82
Piazzi X. 229.	ϵ Leonis.	April 8..... $\begin{smallmatrix} 11 & 30 & 24,77 \\ 9 & & 24,77 \\ 11 & & 24,64 \end{smallmatrix}$	Σ 1606.
April 22..... $\begin{smallmatrix} 10 & 55 & 49,97 \\ 25 & & 49,85 \\ 27 & & 49,96 \end{smallmatrix}$	Nov. 25..... $\begin{smallmatrix} 11 & 15 & 41,14 \end{smallmatrix}$	Σ 1564.	April 28..... $\begin{smallmatrix} 12 & 2 & 47,78 \\ 30 & & 47,56 \end{smallmatrix}$
χ Leonis.	τ Leonis.	April 29..... $\begin{smallmatrix} 11 & 31 & 20,59 \\ 30 & & 20,89 \end{smallmatrix}$	Σ 1619.
Feb. 24..... $\begin{smallmatrix} 10 & 56 & 51,97 \\ 25 & & 51,59 \end{smallmatrix}$	Nov. 25..... $\begin{smallmatrix} 11 & 19 & 48,61 \end{smallmatrix}$	May 2 20,91	May 2..... $\begin{smallmatrix} 12 & 7 & 2,87 \\ 4 & & 2,81 \\ 13 & & 2,64 \end{smallmatrix}$
Σ 1511.	57 Ursæ Majoris.	Σ 1566.	Piazzi XII. 33.
April 6..... $\begin{smallmatrix} 10 & 58 & 55,40 \\ 9 & & 55,59 \\ 11 & & 55,46 \\ 19 & & 55,60 \end{smallmatrix}$	Mar. 18..... $\begin{smallmatrix} 11 & 20 & 32,41 \end{smallmatrix}$	May 4..... $\begin{smallmatrix} 11 & 32 & 25,01 \end{smallmatrix}$	April 29..... $\begin{smallmatrix} 12 & 10 & 3,65 \\ 30 & & 3,71 \end{smallmatrix}$
Piazzi XI. 9.	April 6 32,54 8 32,70	β LEONIS.	May 4 3,73
April 22..... $\begin{smallmatrix} 11 & 5 & 22,63 \\ 25 & & 22,59 \end{smallmatrix}$	Σ 1544.	Mar. 18..... $\begin{smallmatrix} 11 & 40 & 59,83 \end{smallmatrix}$	η Virginis.
May 4 22,52	April 15..... $\begin{smallmatrix} 11 & 22 & 19,88 \\ 19 & & 20,06 \\ 20 & & 20,16 \end{smallmatrix}$	April 9 59,95 11 60,14 15 59,79 19 59,86 20 59,90 25 59,82	Mar. 26..... $\begin{smallmatrix} 12 & 11 & 49,63 \end{smallmatrix}$
	88 Leonis.	May 4 59,90 19 59,71 23 59,83 24 59,90	May 19 49,56
	April 29..... $\begin{smallmatrix} 11 & 23 & 35,17 \\ 30 & & 35,03 \end{smallmatrix}$	June 2 60,02 3 59,58 14 59,65	June 15 49,57
	May 2 35,21	July 23 60,00	Σ 1634.
	90 Leonis.	Oct. 3 59,73 4 59,75	May 16..... $\begin{smallmatrix} 12 & 12 & 44,61 \end{smallmatrix}$
	April 6..... $\begin{smallmatrix} 11 & 26 & 28,60 \\ 9 & & 28,90 \end{smallmatrix}$	Nov. 25 59,78	* N.P.D. $64^{\circ} . 8'$.
			May 2..... $\begin{smallmatrix} 12 & 13 & 29,45 \\ 4 & & 29,25 \\ 13 & & 29,37 \end{smallmatrix}$

Σ 1639.	* N.P.D. 71°. 52'.	Σ 1776.	ARCTURUS <i>continued</i> .
April 28..... ^{h. m. s.} 12 . 16 . 30,69 29 30,75 30 30,66	April 22..... ^{h. m. s.} 13 . 8 . 45,54 25 45,47	June 1..... ^{h. m. s.} 13 . 35 . 16,22	Aug. 16..... ^{h. m. s.} 14 . 8 . 27,39 17 27,44 18 27,49
A.S.C. 1440.	Σ 1734. May 30.....13 . 12 . 40,95 June 6 40,80	α Virginis. April 23.....13 . 41 . 17,99	Sept. 12 27,36 13 27,31 14 27,37 17 27,32 30 27,46
May 19.....12 . 22 . 32,21 25 32,04 26 32,32	SPICA. Mar. 26.....13 . 16 . 52,69 April 23 52,85 May 4 52,67 July 15 52,56 Oct. 26 52,50 Nov. 3 52,75 Dec. 14 52,61 19 52,69	A.S.C. 1585. May 2.....13 . 46 . 41,60 13 41,54 16 41,54	Oct. 5 27,48 6 27,29 21 27,43 26 27,62 27 27,65 31 27,37
η Virginis. Feb. 26.....12 . 25 . 37,76 April 22 38,10 23 37,84 May 19 37,93	24 Comæ Berenices. April 30.....12 . 27 . 12,24 May 2 12,36 13 12,19	Σ 1793. May 30.....13 . 51 . 49,69 31 49,65 June 1 49,81	Nov. 24 27,45 Dec. 2 27,49
35 Comæ Berenices. May 13.....12 . 45 . 30,73 16 30,86 23 31,12	ζ Ursæ Majoris. April 22.....13 . 17 . 33,38 25 33,26	Σ 1807. May 30.....14 . 3 . 8,42 31 8,53 June 1 8,55	Σ 1830. May 2.....14 . 10 . 37,67 10 37,86 13 38,23
ψ Virginis. Feb. 26.....12 . 46 . 8,58 April 22 8,68 23 8,58	Σ 1751. April 27.....13 . 22 . 47,24 29 47,07 May 2 47,33	Σ 1813. April 27.....14 . 5 . 30,22 28 30,18	* N.P.D. 32°. 34'. April 28.....14 . 10 . 53,93 29 53,65 30 53,58
Σ 1690. April 19.....12 . 48 . 6,43	Piazzi XIII. 127. May 31.....13 . 26 . 13,39 June 1 13,41 3 13,57	Σ 1816. June 7.....14 . 6 . 53,13 11 52,97 13 52,98	Σ 1831. April 28.....14 . 11 . 3,44 29 3,51 30 3,47
Σ 1719. April 30.....12 . 59 . 16,28 May 2 16,28 4 16,19	Σ 1760. April 27.....13 . 26 . 59,52 29 59,26 May 4 59,08	Σ 1817. June 6.....14 . 7 . 6,00 8 6,03 10 5,85	Piazzi XIV. 62. June 6.....14 . 14 . 17,43 7 17,52 8 18,10
θ Virginis. Mar. 26.....13 . 1 . 46,71	81 Virginis. May 2.....13 . 29 . 19,33 13 19,16 16 19,20	Σ 1823. June 3.....14 . 8 . 5,65 9 6,31	Piazzi XIV. 70. June 6.....14 . 16 . 11,79 10 11,99 11 11,86
Σ 1727. April 25.....13 . 2 . 23,95 27 23,84 28 24,05	Σ 1768. May 31.....13 . 30 . 26,37 June 1 26,29 3 26,12	ARCTURUS. April 23.....14 . 8 . 27,56 May 4 27,50 19 27,69 July 16 27,53 30 27,46 Aug. 13 27,35	Σ 1847. June 8.....14 . 20 . 12,54
			Σ 1850. June 13.....14 . 21 . 35,79 14 36,03

ζ Bootis.	Σ 1882.	Σ 1935.	κ Libræ.
June 7.....14. 33. 36,56 27 36,35 29 36,23	May 19.....14. 40. 9,49 23 9,37	June 14.....15. 13. 33,95	April 25.....15. 32. 51,34 26 51,38
Σ 1867.	Σ 1883.	Σ 1943.	July 16 51,20
June 11.....14. 34. 1,73 14 1,82 16 1,80	June 10.....14. 41. 3,30 11 3,24 13 2,99	May 10.....15. 19. 48,09 16 48,68	ζ Coronæ Borealis.
Σ 1866.	Σ 1884.	Σ 1952.	June 27.....15. 33. 25,77 28 25,71 29 25,68
June 8.....14. 34. 3,23 9 3,02 10 2,99	June 7.....14. 41. 23,01 8 23,09 9 23,08	June 22.....15. 24. 18,95	α SERPENTIS.
Σ 1870.	α^2 Libræ.	Σ 1953.	May 10.....15. 36. 29,53 12 29,35 13 29,40 19 29,36 28 29,61
May 10.....14. 35. 9,88 12 9,66 13 9,75	April 25.....14. 42. 9,03 26 8,91	May 16.....15. 25. 9,21	June 6 29,44 7 29,57 9 29,48 10 29,53 11 29,58 13 29,46 14 29,52 22 29,56 28 29,63 29 29,43
ϵ BOOTIS.	July 15 8,63 16 8,90	α CORONÆ BOREALIS.	July 12 29,53 21 29,32 29 29,48
April 25.....14. 38. 5,25 26 5,38 29 5,35 30 5,34	Σ 1896.	May 10.....15. 27. 60,11 12 60,09 13 60,19 16 60,11 19 60,16 23 60,08 24 60,00 28 60,09 31 59,82	Aug. 1 29,42 3 29,50 9 29,49 11 29,53 15 29,46 16 29,50 17 29,50
May 12 5,24 16 5,42 31 5,12	May 10.....14. 52. 40,17 13 40,10	June 27 60,00 28 60,00 29 59,96	Sept. 15 29,36
June 1 5,30 2 5,29 3 5,40 6 5,31 7 5,11 8 5,40 9 5,12 10 5,18 11 5,17 13 5,10 14 5,20 22 5,11 27 5,28 29 5,01	20 Libræ.	July 12 59,94 21 59,77 23 59,79	Oct. 21 29,37
July 6 5,09 12 5,06 13 5,14 14 5,23 15 5,18 23 5,02 30 5,18	April 25.....14. 54. 50,35	Aug. 1 59,93 3 59,96 9 60,12 11 60,14 15 60,05 16 60,04	Dec. 27 29,38
Sept. 12 5,16 14 5,16	α^1 Libræ.	Sept. 15 59,81 16 59,76	Σ 1973.
Oct. 27 5,29 28 5,32 29 5,35	May 23.....15. 3. 13,55	Oct. 20 60,11 21 60,09 26 60,01 29 60,11	June 29.....15. 40. 30,39
Nov. 1 5,24 24 5,28	Σ 1919.	Nov. 1 60,08 12 60,07 24 59,95	Σ 1977.
	June 9.....15. 5. 39,80 10 39,76 29 39,74	Dec. 27 59,93	June 27.....15. 42. 52,67 28 52,78
	Σ 1921.	Σ 1963. p.	π Scorpii.
	June 13.....15. 5. 59,53 22 59,80	June 22.....15. 31. 28,14	April 25.....15. 49. 18,45
	5 Serpentis.	Σ 1963. f.	Piazzi XV. 220.
	June 28.....15. 11. 15,23 29 15,14	June 14.....15. 31. 28,51	June 29.....15. 49. 21,16
	Σ 1934.		
	May 10.....15. 11. 50,40		

Σ 1988.	ANTARES.	α HERCULIS continued.	α OPHIUCHI continued.
May 4.....15. 49. 21,27 10.....21,32 12.....21,25	April 26.....16. 19. 44,05 June 8.....43,84 9.....43,84 10.....43,75 13.....43,82 15.....43,82 20.....43,74 27.....43,77 29.....43,95 July 2.....44,05 5.....43,72 6.....43,96 12.....43,75 16.....43,76 Aug. 3.....43,77 8.....43,73 9.....43,78 11.....43,72 15.....43,75 16.....43,87 23.....43,83	Aug. 1.....17. 7. 26,83 5.....26,68 15.....26,84 29.....26,64 Sept. 2.....26,66 6.....26,67 29.....26,63 Nov. 24.....26,75 25.....26,79 Dec. 16.....26,78 20.....26,73 21.....26,78 23.....26,63 27.....26,66	Dec. 13.....17. 27. 36,23 16.....36,19 18.....36,21 20.....36,16 21.....36,20 23.....36,11 27.....36,25
β^1 Scorpii.			Piazzì XVII. 300.
May 24.....15. 56. 15,58			Aug. 9.....17. 49. 28,88
Aug. 9.....15,59 11.....15,59			Sept. 2.....28,74 3.....28,55
Σ 2007.			γ^a Sagittarii.
June 29.....15. 58. 41,52			Aug. 15.....17. 55. 39,64 16.....39,66
July 5.....41,49			70 Ophiuchi.
κ Herculis.			Sept. 2.....17. 57. 28,37 3.....28,26 6.....28,26
July 12.....16. 0. 56,88 30.....56,96			Σ 2278 (first star).
Aug. 1.....56,86			Aug. 29.....18. 0. 6,21 Sept. 15.....5,57
Σ 2011.			Σ 2278 (second star).
June 29.....16. 1. 16,44			Sept. 14.....18. 0. 7,62
Σ 2017.			μ^1 Sagittarii.
June 29.....16. 4. 51,83			Mar. 4.....18. 4. 18,97
δ OPHIUCHI.			Aug. 15.....19,03 16.....19,12
May 4.....16. 6. 4,32 10.....4,21 12.....4,37 13.....4,36 16.....4,42 19.....4,13 24.....4,30 28.....4,19			59 Serpents.
June 3.....4,23 6.....4,29 20.....4,34			Aug. 26.....18. 19. 7,74
July 16.....4,27 29.....4,21 30.....4,18			Sept. 2.....7,80 6.....7,61
Aug. 1.....4,22 3.....4,35 8.....4,18 9.....4,23 11.....4,24 15.....4,14 16.....4,27			Σ 2339.
σ Scorpii.			Aug. 26.....18. 26. 46,92
April 26.....16. 11. 35,85			Sept. 2.....46,83 6.....46,86
			Σ 2375.
			Sept. 14.....18. 37. 42,59

$\Sigma 2400.$	$\Sigma 2486.$	α AQUILÆ.	β AQUILÆ <i>continued.</i>
Sept. 26.....18 . 41 . 49,74	Sept. 2.....19 . 8 . 0,34 3 0,02 9 0,18	Jan. 27.....19 . 43 . 4,50	June 21.....19 . 47 . 32,94
$\Sigma 2402.$	$\Sigma 2499.$	Feb. 13 4,51 18 4,42	July 20 32,05 21 33,10 23 33,14 25 33,12 29 33,15 30 33,18
Aug. 29.....18 . 42 . 17,80 31 17,27	Sept. 12.....19 . 11 . 48,05 14 47,99 15 47,89	Mar. 4 4,47 22 4,31 25 4,48	Aug. 1 33,16 2 33,21 4 33,14 5 33,23 6 33,20 8 33,23 9 33,20 12 33,13 13 33,16 17 33,26 18 33,27 20 33,20 22 33,16 29 33,20 31 33,22
* N.P.D. 79° . 33'.	$\Sigma 2500.$	April 4 4,40 7 4,45 8 4,30 10 4,43 11 4,38	Sept. 2 33,14 3 33,20 6 33,23 9 33,46 12 33,21 14 33,31 15 33,15 16 33,19 19 33,14 20 33,10 21 33,10 26 33,09 29 33,18
Aug. 26.....18 . 42 . 33,51	Sept. 16.....19 . 12 . 31,85 19 31,80 21 31,74	June 21 4,29	Oct. 5 33,04 10 33,17
$\Sigma 2404.$	$\Sigma 2504.$	July 20 4,72 21 4,59 23 4,67 25 4,55 29 4,59	Nov. 24 33,18 30 33,09
Aug. 24.....18 . 43 . 19,60	Sept. 26.....19 . 14 . 2,47	Aug. 1 4,50 2 4,47 4 4,53 6 4,48 8 4,58 9 4,64 12 4,53 13 4,51 20 4,48 24 4,38 29 4,53 31 4,60	Dec. 13 33,13 17 33,06
Sept. 2 19,83 3 19,65	Piazzi XIX. 85.	Sept. 2 4,59 3 4,49 6 4,53 9 4,59 12 4,80 15 4,54 16 4,86 19 4,63 20 4,67 21 4,59 26 4,38 29 4,54	$\Sigma 2606.$
$\Sigma 2409.$	Oct. 5.....19 . 14 . 15,06	Oct. 5 4,65 10 4,40 29 4,29	Aug. 1.....19 . 52 . 26,74
Sept. 14.....18 . 44 . 27,79 15 27,56 19 27,57	Piazzi XIX. 149. <i>p.</i>	Nov. 24 4,43 30 4,43	Sept. 3 26,56
σ Sagittarii.	Sept. 2.....19 . 21 . 59,79	Dec. 17 4,41 19 4,38 24 4,48 27 4,36	Oct. 28 26,83
Aug. 16.....18 . 45 . 28,05 17 28,04	Piazzi XIX. 149. <i>f.</i>	β AQUILÆ.	$\Sigma 2609.$
Sept. 12 28,03	Sept. 9.....19 . 22 . 0,46	Mar. 4.....19 . 47 . 32,99 22 33,04 25 33,10	Aug. 29.....19 . 52 . 52,25
$\Sigma 2415.$	h^s Sagittarii.	April 4 33,12 7 33,09 10 33,16 11 33,17	Sept. 2 52,41
Aug. 29.....18 . 47 . 44,42 31 44,39	July 20.....19 . 27 . 5,08 21 5,12		$\Sigma 2610.$
Sept. 2 44,32	Sept. 14 5,32		July 29.....19 . 53 . 12,22
$\Sigma 2422.$	e^s Sagittarii.		Sept. 15 12,31
Sept. 3.....18 . 50 . 42,52 14 42,41 15 42,34	Aug. 17.....19 . 33 . 28,73 18 28,70		
$\Sigma 2448.$	γ Aquilæ.		
Aug. 9.....18 . 58 . 0,33	Aug. 9 .....19 . 38 . 45,10 17 44,94 20 44,91		
π Sagittarii.	π Aquilæ.		
July 20.....19 . 0 . 21,74 21 21,92	Sept. 12.....19 . 41 . 15,54		
Aug. 16 21,94	57 Sagittarii.		
$\Sigma 2466.$	Aug. 17.....19 . 43 . 0,77		
Sept. 15.....19 . 1 . 43,68 19 43,63	Sept. 14 0,85		

Σ 2613.	Σ 2651.	Σ 2681.	Σ 2747.
Sept. 26..... ^{h. m. s.} 19 . 53 . 54,42 Oct. 5 29 54,54 54,46	Oct. 28..... ^{h. m. s.} 20 . 6 . 30,08 Nov. 1 4 30,11 30,23	Aug. 29..... ^{h. m. s.} 20 . 18 . 33,91 Sept. 2 33,67	Oct. 21..... ^{h. m. s.} 20 . 56 . 11,38 28 11,38 Nov. 24 11,20
Σ 2611.	α^2 CAPRICORNI.	ρ Capricorni.	θ Capricorni.
Sept. 29.....19 . 54 . 5,60	July 20.....20 . 9 . 16,98 21 17,03 23 17,00 25 16,97 29 16,98 30 17,29 Aug. 1 2 4 5 6 11 12 13 17 20 22 17,11 16,89 16,97 17,02 16,95 17,00 16,98 17,01 17,06 17,00 17,03 Oct. 13 17,04	July 21.....20 . 19 . 50,49 Σ 2695. Aug. 29.....20 . 25 . 12,56 ν Capricorni. Aug. 19.....20 . 31 . 3,00 Sept. 14 15 3,06 3,09 Σ 2708. Oct. 13.....20 . 32 . 42,11 Σ 2720. Oct. 28.....20 . 36 . 10,81 Nov. 1 10,83 γ Delphini. Sept. 2.....20 . 39 . 19,86 4 Aquarii. Sept. 3.....20 . 43 . 2,87 10 2,82 12 2,85 5 Aquarii. Sept. 2.....20 . 43 . 47,63 μ Aquarii. July 23.....20 . 44 . 7,56 Aug. 19 7,77 Σ 2738. Oct. 21.....20 . 51 . 10,72 59 Cygni. Aug. 9.....20 . 54 . 27,30 11 27,43 Sept. 2 27,02	Oct. 13.....20 . 57 . 3,41 Σ 2750. Nov. 30.....20 . 57 . 28,95 Σ 2759. Sept. 14.....20 . 59 . 54,80 Oct. 21 54,71 Σ 2760. Sept. 12.....21 . 0 . 19,83 Oct. 27 19,69 δ Capricorni. Sept. 16.....21 . 6 . 59,62 Oct. 13 59,58 ι Capricorni. Aug. 19.....21 . 13 . 26,58 20 26,31 β AQUARI. Aug. 8.....21 . 23 . 14,43 20 14,25 24 14,23 29 14,23 Sept. 3 14,27 9 14,19 10 14,16 12 14,40 14 14,33 15 14,30 16 14,26 20 14,30 24 14,40 26 14,45 Oct. 13 14,33 19 14,25 27 14,31 28 14,28 29 14,28 Nov. 1 14,25 4 14,23 12 14,24 24 14,27
Σ 2616.			
Sept. 16.....19 . 55 . 27,30			
* N.P.D. 74° . 59'.			
Oct. 29.....19 . 55 . 47,23 Nov. 1 47,13			
Σ 2618.			
Oct. 29.....19 . 56 . 11,42 Nov. 1 4 11,42 11,54			
Σ 2619.			
Sept. 2.....19 . 56 . 21,35 Oct. 28 21,58			
Σ 2626.			
Aug. 29.....19 . 57 . 56,12 Sept. 12 56,45			
Σ 2631.			
Sept. 16.....20 . 0 . 17,19 26 16,98 Oct. 5 28 17,57 17,24			
Σ 2635.			
July 29.....20 . 2 . 28,99 Aug. 29 28,86 Sept. 2 15 29,01 29,00			
Piazzì XX. 26.			
Sept. 12.....20 . 4 . 31,65			
	Σ 2659. Oct. 28 . ...20 . 10 . 21,96 29 21,90 * N.P.D. 76° . 6'. Nov. 1.....20 . 11 . 47,69 4 47,80 Σ 2665. Nov. 1.....20 . 11 . 59,63 4 59,68 β^2 Capricorni. Sept. 14.....20 . 12 . 8,00 15 7,76 Σ 2667. Sept. 3.....20 . 12 . 22,92 12 22,91 Σ 2666. Aug. 29.....20 . 12 . 31,35 Sept. 16 31,04 Σ 2671. Sept. 20.....20 . 14 . 30,07 26 30,49		

β AQUARIi <i>continued.</i>	Σ 2840.	θ Aquarii.	λ Aquarii.
Dec. 8..... ^{h. m. s.} 21.23.14,21 13.....14,32 14.....14,32 22.....14,29	Sept. 10..... ^{h. m. s.} 21.46.40,36 12.....40,27	Aug. 20..... ^{h. m. s.} 22.8.29,54 Sept. 16.....29,55	Nov. 12..... ^{h. m. s.} 22.44.22,00 Dec. 8.....22,19
ξ Aquarii.	30 Aquarii.	Σ 2889.	β Piscium.
Oct. 13.....21.29.20,18	July 23.....21.54.57,57	Oct. 24.....22.9.0,78	Aug. 22.....22.55.50,26 Nov. 12.....50,10
Σ 2813. <i>p.</i>	α AQUARIi.	ρ Aquarii.	β Pegasi.
Oct. 21.....21.31.10,14	May 2.....21.57.40,03	Oct. 3.....22.11.52,67 6.....52,86 13.....52,83 Dec. 14.....52,91	Sept. 29.....22.56.7,58 Oct. 26.....7,43
Σ 2813. <i>f.</i>	Aug. 20.....40,09 23.....40,28 24.....40,02	Σ 2905. <i>p.</i>	α PEGASI.
Oct. 28.....21.31.11,94	Sept. 9.....40,00 10.....40,06 12.....40,07 14.....40,12 15.....40,26 20.....40,10 24.....39,95 26.....40,12	Oct. 21.....22.19.28,54	Jan. 24.....22.56.53,72 27.....53,64 28.....53,58
Σ 2815.	Oct. 3.....39,89 6.....40,11 13.....40,04 19.....40,01 24.....40,06 26.....39,93	Σ 2905. <i>f.</i>	Feb. 14.....53,72 15.....53,68 16.....53,63 19.....53,57
Oct. 28.....21.32.49,13 Nov. 4.....49,31	Nov. 3.....40,04 4.....40,04 30.....40,03	Oct. 3.....22.19.28,63 6.....29,10	April 5.....53,74 7.....53,77
Piazzi XXI. 248.	Dec. 21.....40,06 22.....40,01 28.....40,05	ζ Aquarii.	Aug. 23.....53,91 24.....53,77 30.....53,69
Oct. 21.....21.34.3,77	ι Aquarii.	Aug. 20.....22.20.41,83	Sept. 2.....53,74 3.....53,87 10.....53,84 12.....53,66 14.....53,73 15.....53,73 16.....53,79 19.....53,66 20.....53,82 21.....53,77 24.....53,67 26.....53,70
λ Capricorni.	Dec. 8.....21.57.53,81	A.S.C. 2697.	Oct. 3.....53,55 4.....53,59 6.....53,78 19.....53,77 20.....53,56 24.....53,66 29.....53,72
July 23.....21.38.1,31 Oct. 13.....1,12 Nov. 24.....1,47 25.....1,47	Σ 2861.	Oct. 3.....22.26.30,88 6.....31,01 13.....31,25	Nov. 3.....53,68 4.....53,64 24.....53,68 25.....53,65 26.....53,66 30.....53,73
δ Capricorni.	Aug. 29.....21.58.34,46	η Aquarii.	Dec. 3.....53,73 8.....53,68 13.....53,66 14.....53,71 28.....53,76 30.....53,78
April 4.....21.38.19,00 Dec. 8.....18,80	Sept. 2.....34,42 3.....34,51	Oct. 26.....22.27.14,13 Dec. 8.....14,09	
* N.P.D. 71°. 28'.	Σ 2878.	Σ 2943.	
Oct. 21.....21.43.56,98 26.....56,62 Nov. 4.....56,60	Oct. 3.....22.6.36,41 6.....36,56	Aug. 30.....22.39.19,09 Sept. 2.....19,22 9.....19,05	
Σ 2834.	Σ 2881.	Piazzi XXII. 219. <i>p.</i>	
Sept. 9.....21.44.14,49	Sept. 10.....22.7.22,67 14.....22,76	Oct. 26.....22.39.40,89	
μ Capricorni.	Σ 2882.	Piazzi XXII. 219. <i>f.</i>	
Oct. 13.....21.44.40,47	Oct. 21.....22.7.24,08	Oct. 6.....22.39.41,54	

γ Piscium.	Σ 3024.	λ Piscium.	* N.P.D. $26^{\circ}.11'$.
May 31..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 8 & 58,70 \end{smallmatrix}$	Oct. 29..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 24 & 23,82 \end{smallmatrix}$	Oct. 3..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 33 & 58,99 \end{smallmatrix}$	Oct. 24..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 56 & 3,53 \end{smallmatrix}$
Σ 3012.	Nov. 3 4	4 6 10	26 3,62
Oct. 6..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 19 & 37,17 \end{smallmatrix}$			
10 29			
	ι Piscium.	ω Piscium.	Piazzi XXIII. 276.
Piazzi XXIII. 100.	Aug. 22..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 31 & 49,59 \end{smallmatrix}$	Aug. 22..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 51 & 12,01 \end{smallmatrix}$	Oct. 6..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 58 & 25,71 \end{smallmatrix}$
Oct. 4..... $\begin{smallmatrix} h. & m. & s. \\ 23 & 22 & 35,98 \end{smallmatrix}$	23 49,71		28 25,59
10 31	Nov. 12 49,44	Nov. 12 11,98	31 25,58

CATALOGUE OF THE CONCLUDED MEAN RIGHT ASCENSIONS, JAN. 1, 1842;
WITH THE ANNUAL VARIATIONS.

Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Obser- vations.	Mean R.A. Jan. 1, 1842.	Annual Variation.	Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Obser- vations.	Mean R.A. Jan. 1, 1842.	Annual Variation.
	° ' "		h. m. s.	s.		° ' "		h. m. s.	s.
α ANDROMEDÆ	61.47	47	0. 0. 13.98	+ 3,071	C Tauri	62.26	1	5. 43. 23.96	+ 3,767
Σ 19. <i>np.</i>	54.15	2	0. 8. 29.42	+ 3,106	α ORIONIS	82.38	17	5. 46. 37.18	+ 3,243
Σ 25.	74.53	2	0. 10. 33.22	+ 3,087	H Geminorum	66.44	2	5. 54. 31.16	+ 3,645
<i>d</i> Piscium	82.41	4	0. 12. 28.41	+ 3,080	Σ 840.	79.14	4	5. 57. 42.28	+ 3,325
55 Piscium. <i>nf.</i>	69.26	3	0. 31. 37.16	+ 3,139	Σ 848. <i>np.</i>	76. 1	3	5. 59. 32.57	+ 3,403
Σ 51. <i>np.</i>	73.31	4	0. 35. 16.85	+ 3,131	η Geminorum	67.27	1	6. 5. 20.39	+ 3,625
β Ceti	108.51	1	0. 35. 39.48	+ 3,000	μ Geminorum	67.25	5	6. 13. 24.16	+ 3,626
δ Piscium	83.17	1	0. 40. 29.66	+ 3,098	15 Geminorum	69. 7	3	6. 18. 21.57	+ 3,579
ϵ Piscium	82.58	1	0. 54. 44.88	+ 3,109	* (Mag. 8).	69. 5	1	6. 19. 46.10	+ 3,580
POLARIS. <i>nf.</i>	1.32	83	1. 2. 43.58	+16,708	* (Mag. 7, 8).	69. 7	1	6. 21. 1.91	+ 3,578
ϕ Piscium. <i>nf.</i>	66.15	1	1. 5. 10.86	+ 3,236	51 (Hev.) Cephei ...	2.44	3	6. 24. 25.74	+30,849
42 Ceti. <i>sf.</i>	91.20	1	1. 11. 44.04	+ 3,061	12 Lyncis*	30.24	3	6. 32. 15.45	+ 5,327
θ Ceti	99. 0	1	1. 16. 7.72	+ 3,001	Σ 953. <i>sf.</i>	80.52	2	6. 32. 30.86	+ 3,283
η Piscium	75.28	2	1. 23. 2.20	+ 3,193	ϵ Geminorum	64.43	4	6. 34. 12.52	+ 3,695
A.S.C. 175.	83.10	3	1. 27. 47.14	+ 3,130	Sirius.	106.30	2	6. 38. 11.32	+ 2,646
4 Arietis	73.50	1	1. 39. 37.47	+ 3,234	ζ Geminorum	69.12	3	6. 54. 44.10	+ 3,564
Piazzzi I. 191. <i>sp.</i> ...	79.58	2	1. 43. 39.40	+ 3,174	Σ 1033.	37.12	3	7. 2. 17.88	+ 4,767
β Arietis	69.58	5	1. 45. 55.46	+ 3,288	Σ 1037.	62.31	4	7. 2. 58.92	+ 3,740
Σ 194.	65.56	1	1. 50. 27.30	+ 3,347	δ Geminorum	67.44	3	7. 10. 40.95	+ 3,592
α ARIETIS	67.17	31	1. 58. 16.87	+ 3,347	Σ 1083. <i>sp.</i>	69.12	3	7. 16. 15.10	+ 3,550
Σ 221. <i>np.</i>	70.24	2	2. 0. 57.48	+ 3,310	CASTOR. <i>nf.</i>	57.46	28	7. 24. 30.59	+ 3,857
θ Arietis	70.50	3	2. 9. 20.95	+ 3,319	Σ 1116. <i>np.</i>	77.21	3	7. 25. 43.51	+ 3,350
ψ Arietis	73. 0	1	2. 22. 9.23	+ 3,308	ν Geminorum	62.46	1	7. 26. 10.78	+ 3,710
Σ 274. <i>sp.</i>	89.37	1	2. 23. 22.50	+ 3,076	PROCYON	84.22	44	7. 31. 1.71	+ 3,145
Σ 285.	57.16	3	2. 29. 14.54	+ 3,591	Piazzzi VII. 170.	84.25	4	7. 31. 43.23	+ 3,191
ν Arietis	68.43	2	2. 29. 51.40	+ 3,387	κ Geminorum	65.14	2	7. 34. 54.01	+ 3,635
* (Mag. 8, 9).	74. 1	1	2. 31. 24.36	+ 3,305	POLLUX	61.36	43	7. 35. 38.33	+ 3,683
Σ 291. <i>np.</i>	71.53	5	2. 32. 16.75	+ 3,340	5 Argûs. <i>sp.</i>	101.49	3	7. 40. 32.79	+ 2,817
π Arietis. <i>np.</i>	73.12	1	2. 40. 29.15	+ 3,331	14 Canis Minoris†..	87.22	3	7. 50. 8.97	+ 3,125
ϵ Arietis	69.18	2	2. 50. 11.38	+ 3,412	ω^1 Cancri	64.11	1	7. 51. 21.64	+ 3,642
α CETI	86.32	14	2. 54. 1.61	+ 3,126	A.S.C. 985.	87.14	3	7. 54. 2.52	+ 3,127
δ Arietis	70.53	3	3. 2. 36.38	+ 3,402	11 Cancri. <i>nf.</i>	62. 4	4	7. 59. 9.19	+ 3,686
<i>g</i> Arietis	65.50	5	3. 14. 59.41	+ 3,521	ζ Cancri†	71.53	1	8. 3. 8.71	+ 3,446
<i>e</i> Pleiadum	66. 2	1	3. 35. 48.83	+ 3,551	Σ 1200.	39.45	2	8. 4. 20.66	+ 4,447
<i>d</i> Pleiadum	66.33	2	3. 36. 37.54	+ 3,541	λ Cancri	65.29	1	8. 11. 7.99	+ 3,583
η Tauri	66.23	4	3. 38. 6.23	+ 3,547	ν^1 Cancri. <i>sp.</i>	64.57	1	8. 17. 15.42	+ 3,587
Λ^1 Tauri	68.21	3	3. 55. 21.89	+ 3,525	θ Cancri	71.23	2	8. 22. 34.74	+ 3,436
Σ 520.	67.35	1	4. 8. 50.46	+ 3,558	Σ 1244. <i>sp.</i>	47.39	1	8. 27. 4.55	+ 4,047
Σ 535. <i>sf.</i>	79. 0	4	4. 14. 33.26	+ 3,303	A.S.C. 1044. <i>sp.</i> ...	82.50	6	8. 27. 26.79	+ 3,205
ν^1 Tauri	67.33	2	4. 16. 51.81	+ 3,568	Piazzzi VIII. 131. <i>np.</i>	40.34	1	8. 32. 12.53	+ 4,300
ALDEBARAN	73.49	27	4. 26. 51.69	+ 3,427	Piazzzi VIII. 131. <i>sf.</i>	40.34	2	8. 32. 12.90	+ 4,300
2 Camelopardi. <i>sf.</i> ..	36.51	2	4. 27. 28.16	+ 4,711	Σ 1263. <i>sp.</i>	47.44	4	8. 34. 43.45	+ 4,019
Σ 577.	52.48	5	4. 31. 36.56	+ 4,011	δ Cancri	71.16	4	8. 35. 41.80	+ 3,423
τ Tauri	67.21	3	4. 32. 46.25	+ 3,588	κ Cancri. <i>sf.</i>	60.40	3	8. 37. 7.48	+ 3,652
ω Aurigæ. <i>sf.</i>	52.21	4	4. 48. 32.50	+ 4,052	ϵ Hydræ. <i>nf.</i>	83. 0	3	8. 38. 24.28	+ 3,197
ι Tauri	68.38	1	4. 53. 39.54	+ 3,572	Σ 1288. <i>sp.</i>	60.57	3	8. 43. 13.61	+ 3,633
Σ 644.	52.54	3	4. 59. 37.66	+ 4,047	Σ 1289. <i>sp.</i>	45.49	4	8. 44. 9.59	+ 4,051
Σ 652.	89.10	4	5. 3. 36.54	+ 3,089	ι^2 Cancri	58.50	3	8. 44. 35.36	+ 3,679
RIGEL. <i>nf.</i>	98.23	33	5. 6. 56.85	+ 2,879	* (Mag. 8).	45.44	2	8. 45. 31.78	+ 4,048
Σ 694.	65.12	3	5. 14. 19.13	+ 3,676	ι Ursæ Majoris	41.21	3	8. 48. 21.72	+ 4,128
β TAURI	61.32	33	5. 16. 18.52	+ 3,782	α^2 Cancri	77.32	2	8. 49. 50.44	+ 3,289
118 Tauri. <i>nf.</i>	64.59	3	5. 19. 33.22	+ 3,685	σ^4 Cancri. <i>np.</i>	57. 8	3	8. 51. 41.89	+ 3,703
32 Orionis. <i>nf.</i>	84.11	2	5. 22. 19.88	+ 3,205	σ^2 Ursæ Majoris. <i>nf.</i>	22.14	3	8. 56. 24.20	+ 5,419
33 Orionis. <i>sp.</i>	86.50	3	5. 22. 57.26	+ 3,143	Σ 1311. <i>nf.</i>	66.23	3	8. 58. 19.93	+ 3,487
Σ 734. <i>sf.</i>	91.50	1	5. 25. 8.36	+ 3,028	* (Mag. 9).	68.22	1	8. 58. 40.78	+ 3,448
λ Orionis. <i>sp.</i>	80.11	3	5. 26. 26.16	+ 3,299	Σ 1312. <i>np.</i>	36.59	3	8. 59. 0.89	+ 4,331
ι Orionis. <i>np.</i>	96. 1	3	5. 27. 42.37	+ 2,931	Σ 1318. <i>nf.</i>	42.22	3	9. 2. 56.92	+ 4,094
ζ Tauri	68.58	1	5. 28. 12.36	+ 3,580	* (Mag. 8, 9).	68.41	1	9. 3. 42.21	+ 3,433
Σ 757.	90.17	3	5. 30. 1.78	+ 3,064	Σ 1322.	72.50	3	9. 3. 51.16	+ 3,358
52 Orionis	83.36	3	5. 39. 30.88	+ 3,220	Σ 1333.	53.59	3	9. 8. 40.33	+ 3,731

* The south following double-star observed as single.

† The brightest of three.

‡ The north preceding double-star observed as single.

Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Observations.	Mean R.A. Jan. 1, 1842.	Annual Variation.	Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Observations.	Mean R.A. Jan. 1, 1842.	Annual Variation.
	°		h. m. s.	s.		°		h. m. s.	s.
* (Mag. 8).....	68.31	1	9. 9. 36.76	+ 3,427	24 Comæ Beren. <i>sf.</i>	70.45	3	12. 27. 12.26	+ 3,015
Σ 1338.....	51. 9	3	9. 11. 4.12	+ 3,794	35 Comæ Beren. †.	67.54	3	12. 45. 30.90	+ 2,942
39 Lyncis. <i>sf.</i>	39.47	3	9. 11. 43.65	+ 4,146	ψ Virginis.....	98.41	3	12. 46. 8.61	+ 3,111
21 Ursæ Majoris. <i>sf.</i>	35.19	3	9. 14. 23.85	+ 4,318	Σ 1690. <i>np.</i>	94. 0	1	12. 48. 6.43	+ 3,090
* (Mag. 7, 8).....	68.58	1	9. 14. 51.88	+ 3,410	Σ 1719. <i>sp.</i>	88.34	3	12. 59. 16.25	+ 3,062
Σ 1348.....	82.58	2	9. 16. 8.96	+ 3,179	θ Virginis. <i>sf.</i>	94.42	1	13. 1. 46.71	+ 3,100
Σ 1355. <i>np.</i>	83. 5	3	9. 18. 57.73	+ 3,175	Σ 1727. <i>sf.</i>	57.47	3	13. 2. 23.95	+ 2,844
α HYDRÆ.....	97.59	26	9. 19. 49.39	+ 2,950	* (Mag. 7, 8).....	71.52	2	13. 8. 45.51	+ 2,941
Σ 1365. <i>np.</i>	87.50	3	9. 23. 21.87	+ 3,102	Σ 1734.....	86.14	2	13. 12. 40.88	+ 3,043
14 Leonis.....	79.24	3	9. 32. 42.67	+ 3,220	SPICA.....	100.20	8	13. 16. 52.67	+ 3,151
Piazzi IX. 161. <i>np.</i>	86.39	3	9. 35. 15.27	+ 3,117	ζ Ursæ Majoris. <i>np.</i>	34.15	2	13. 17. 33.32	+ 2,419
Σ 1379. <i>np.</i>	80.24	3	9. 36. 52.68	+ 3,203	Σ 1751. <i>sp.</i>	79.52	3	13. 22. 47.21	+ 2,986
Σ 1396. <i>np.</i>	78.35	3	9. 47. 54.97	+ 3,218	Piazzi XIII. 127. <i>sp.</i>	89.30	3	13. 26. 13.46	+ 3,066
π Leonis.....	81.12	3	9. 51. 51.52	+ 3,180	Σ 1760. <i>sp.</i>	62.55	3	13. 26. 59.29	+ 2,817
REGULUS.....	77.16	39	9. 59. 57.12	+ 3,222	81 Virginis. <i>sp.</i>	97. 4	3	13. 29. 19.23	+ 3,133
Σ 1417. <i>sp.</i>	70. 6	3	10. 6. 29.33	+ 3,300	Σ 1768. <i>sp.</i>	52.54	3	13. 30. 26.26	+ 2,682
γ Leonis. <i>np.</i>	69.22	1	10. 11. 15.08	+ 3,300	Σ 1776. <i>sp.</i>	42.59	1	13. 35. 16.22	+ 2,491
Σ 1426*.....	82.47	2	10. 12. 15.77	+ 3,147	α Virginis.....	107.21	1	13. 41. 17.99	+ 3,249
Piazzi X. 58. <i>sp.</i> ...	36.35	3	10. 15. 57.96	+ 3,860	A.S.C. 1585. <i>sp.</i> ...	97.17	3	13. 46. 41.56	+ 3,147
44 Leonis.....	80.25	3	10. 16. 55.38	+ 3,169	Σ 1793. <i>nf.</i>	63.25	3	13. 51. 49.72	+ 2,757
Piazzi X. 67. <i>sp.</i> ...	80.25	3	10. 17. 15.41	+ 3,168	Σ 1807. <i>sp.</i>	92.35	3	14. 3. 8.50	+ 3,101
Σ 1439. <i>np.</i>	68.23	3	10. 21. 27.15	+ 3,291	Σ 1813. <i>sp.</i>	83.51	2	14. 5. 30.20	+ 2,995
ρ Leonis.....	79.53	1	10. 24. 29.70	+ 3,167	Σ 1816.....	60. 9	3	14. 6. 53.03	+ 2,667
Σ 1447. <i>np.</i>	65.50	2	10. 25. 6.56	+ 3,312	Σ 1817. <i>sp.</i>	62.34	3	14. 7. 5.96	+ 2,705
48 Leonis.....	82.14	2	10. 26. 33.09	+ 3,143	Σ 1823. <i>np.</i>	78.57	2	14. 8. 5.98	+ 2,932
Σ 1457. <i>sf.</i>	83.27	3	10. 30. 29.36	+ 3,129	ARCTURUS.....	70. 0	22	14. 8. 27.46	+ 2,734
Σ 1460. <i>np.</i>	47. 2	3	10. 31. 20.14	+ 3,540	Σ 1830. <i>nf.</i>	32.36	3	14. 10. 37.92	+ 1,942
* (Mag. 7, 8).....	89.27	4	10. 33. 5.43	+ 3,075	* (Mag. 7).....	32.34	3	14. 10. 53.72	+ 1,939
Σ 1464. <i>sf.</i>	89.27	3	10. 33. 30.01	+ 3,075	Σ 1831. <i>np.</i>	32.33	3	14. 11. 3.47	+ 1,937
34 Sextantis.....	85.36	2	10. 34. 28.04	+ 3,108	Piazzi XIV. 62. <i>np.</i>	97. 2	3	14. 14. 17.68	+ 3,162
40 Sextantis.....	93.11	3	10. 41. 16.69	+ 3,045	Piazzi XIV. 70. <i>sp.</i>	100.57	3	14. 16. 11.88	+ 3,215
d Leonis.....	85.32	2	10. 52. 23.98	+ 3,101	Σ 1847. <i>nf.</i>	99.30	1	14. 20. 12.54	+ 3,199
Piazzi X. 229.....	85.31	3	10. 55. 49.93	+ 3,099	Σ 1850. <i>nf.</i>	61. 0	2	14. 21. 35.91	+ 2,641
χ Leonis.....	81.49	2	10. 56. 51.78	+ 3,123	ζ Bootis.....	75.35	3	14. 33. 36.38	+ 2,857
Σ 1511. <i>sf.</i>	78.14	4	10. 58. 55.51	+ 3,144	Σ 1867.....	58. 2	3	14. 34. 1.78	+ 2,551
Piazzi XI. 9.....	69. 0	3	11. 5. 22.58	+ 3,192	Σ 1866.....	79.48	3	14. 34. 3.08	+ 2,921
δ Leonis.....	68.37	1	11. 5. 41.94	+ 3,193	Σ 1870. <i>nf.</i>	81.15	3	14. 35. 9.76	+ 2,942
Σ 1521. <i>np.</i>	61.34	1	11. 6. 52.09	+ 3,237	ε Bootis. <i>sf.</i>	62.15	35	14. 38. 5.22	+ 2,623
Σ 1527. <i>sp.</i>	74.52	4	11. 10. 43.08	+ 3,148	Σ 1882. <i>sp.</i>	28.14	2	14. 40. 9.43	+ 1,469
Σ 1530 { <i>np.</i>	96. 2	1	11. 11. 43.96	+ 3,041	Σ 1883.....	83.23	3	14. 41. 3.18	+ 2,970
{ <i>sf.</i>	96. 2	1	11. 11. 44.56	+ 3,041	Σ 1884. <i>sp.</i>	64.58	3	14. 41. 23.06	+ 2,666
σ Leonis.....	83. 6	1	11. 12. 59.13	+ 3,103	α ² LIBRÆ.....	105.23	4	14. 42. 8.87	+ 3,310
ι Leonis. <i>sp.</i>	78.36	1	11. 15. 41.14	+ 3,122	Σ 1896. <i>sf.</i>	45.19	2	14. 52. 40.14	+ 2,166
τ Leonis.....	86.16	1	11. 19. 48.61	+ 3,086	20 Libræ.....	114.39	1	14. 54. 50.35	+ 3,494
57 Ursæ Majoris. <i>sp.</i>	49.48	3	11. 20. 32.55	+ 3,264	ι ¹ Libræ.....	109.11	1	15. 3. 13.55	+ 3,404
Σ 1544. <i>sp.</i>	29.26	3	11. 22. 20.03	+ 3,458	Σ 1919. <i>sp.</i>	70. 8	3	15. 5. 39.77	+ 2,720
88 Leonis. <i>sf.</i>	74.45	3	11. 23. 35.14	+ 3,128	Σ 1921. <i>sf.</i>	50.44	2	15. 5. 59.67	+ 2,278
90 Leonis. <i>nf.</i>	72.20	2	11. 26. 28.75	+ 3,132	5 Serpentis. <i>sp.</i>	87.38	2	15. 11. 15.18	+ 3,030
A.S.C. 1359.....	61.21	3	11. 27. 58.41	+ 3,172	Σ 1934. <i>sp.</i>	45.37	1	15. 11. 50.40	+ 2,099
υ Leonis.....	89.57	5	11. 28. 51.58	+ 3,071	Σ 1935. <i>np.</i>	58.44	1	15. 13. 33.95	+ 2,463
A.S.C. 1364. <i>sf.</i>	91.34	2	11. 30. 19.82	+ 3,066	Σ 1943. <i>np.</i>	84. 5	2	15. 19. 48.39	+ 2,964
Σ 1561. <i>nf.</i>	44. 1	3	11. 30. 24.73	+ 3,249	Σ 1952. <i>nf.</i>	79.48	1	15. 24. 18.95	+ 2,883
Σ 1564. <i>sp.</i>	62.10	3	11. 31. 20.80	+ 3,158	Σ 1953. <i>nf.</i>	83.57	3	15. 25. 8.79	+ 2,960
Σ 1566. <i>sf.</i>	68. 5	1	11. 32. 25.01	+ 3,135	α CORONÆ BOREALIS	62.45	31	15. 28. 0.01	+ 2,528
β LEONIS.....	74.33	18	11. 40. 59.84	+ 3,066	Σ 1963. { <i>np.</i>	59.23	1	15. 31. 28.14	+ 2,440
β Virginis.....	87.21	4	11. 42. 27.88	+ 3,075	{ <i>sf.</i>	59.23	1	15. 31. 28.51	+ 2,440
Σ 1582. <i>sp.</i>	67. 8	3	11. 47. 53.22	+ 3,100	κ Libræ.....	109.10	3	15. 32. 51.31	+ 3,443
Σ 1585. <i>np.</i>	48. 6	3	11. 48. 29.70	+ 3,131	ζ Coronæ Bor. <i>sf.</i> ...	52.51	3	15. 33. 25.72	+ 2,258
Σ 1606.....	49.14	2	12. 2. 47.67	+ 3,056	α SERPENTIS.....	83. 4	28	15. 36. 29.47	+ 2,939
Σ 1619. <i>sf.</i>	96.23	3	12. 7. 2.77	+ 3,075	Σ 1973. <i>sf.</i>	52.59	1	15. 40. 30.39	+ 2,243
Piazzi XII. 33.....	93. 4	3	12. 10. 3.70	+ 3,074	Σ 1977. <i>sf.</i>	64. 3	2	15. 42. 52.73	+ 2,533
η Virginis.....	89.47	3	12. 11. 49.59	+ 3,070	π Scorpii.....	115.39	1	15. 49. 18.45	+ 3,611
Σ 1634. <i>np.</i>	66.12	1	12. 12. 44.61	+ 3,038	Piazzi XV. 220. <i>sf.</i>	86. 8	1	15. 49. 21.16	+ 2,994
* (Mag. 7, 8).....	64. 8	3	12. 13. 29.36	+ 3,032	Σ 1988. <i>nf.</i>	77. 4	3	15. 49. 21.28	+ 2,812
Σ 1639. <i>sf.</i>	63.32	3	12. 16. 30.70	+ 3,023	β ¹ Scorpii.....	109.22	3	15. 56. 15.59	+ 3,474
A.S.C. 1440.....	79.24	3	12. 22. 32.19	+ 3,460	Σ 2007. <i>sf.</i>	76.15	2	15. 58. 41.51	+ 2,788
q Virginis.....	98.35	4	12. 25. 57.91	+ 3,093	κ Herculis. <i>sp.</i>	72.32	3	16. 0. 56.90	+ 2,705

* The south preceding double-star observed as single.

† The double-star observed as single.

Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Obser- vations.	Mean R.A. Jan. 1, 1842.	Annual Variation.	Name of Star.	Approximate N.P.D. Jan. 1, 1842.	Number of Obser- vations.	Mean R.A. Jan. 1, 1842.	Annual Variation.
	° ' "		h. m. s.	s.		° ' "		h. m. s.	s.
Σ 2011. <i>sp.</i>	60. 35	1	16. 1. 16,44	+ 2,415	β ² Capricorni.....	105. 16	2	20. 12. 7,88	+ 3,376
Σ 2017. <i>nf.</i>	75. 2	1	16. 4. 51,83	+ 2,757	Σ 2667. <i>nf.</i>	44. 51	2	20. 12. 22,91	+ 1,944
δ Ophiuchi.....	93. 17	21	16. 6. 4,26	+ 3,138	Σ 2666. <i>nf.</i>	49. 45	2	20. 12. 31,19	+ 2,123
σ Scorpii.....	115. 12	1	16. 11. 35,85	+ 3,631	Σ 2671. <i>sf.</i>	35. 6	2	20. 14. 30,28	+ 1,486
ANTARES.....	116. 5	21	16. 19. 43,82	+ 3,663	Σ 2681†.....	37. 5	2	20. 18. 33,79	+ 1,615
ζ Herculis.....	58. 6	3	16. 35. 19,87	+ 2,294	ρ Capricorni.....	108. 20	1	20. 19. 50,49	+ 3,434
Σ 2087. <i>sf.</i>	66. 2	3	16. 35. 57,32	+ 2,516	Σ 2695. <i>sp.</i>	64. 44	1	20. 25. 12,56	+ 2,562
56 Herculis.....	64. 1	3	16. 48. 34,26	+ 2,450	υ Capricorni.....	108. 41	3	20. 31. 3,05	+ 3,428
η Ophiuchi.....	105. 31	2	17. 1. 19,28	+ 3,430	Σ 2708. <i>sf.</i>	51. 55	1	20. 32. 42,11	+ 2,247
α HERCULIS. <i>np.</i>	75. 25	25	17. 7. 26,72	+ 2,732	Σ 2720. <i>sp.</i>	73. 37	2	20. 36. 10,82	+ 2,765
θ Ophiuchi.....	114. 50	2	17. 12. 18,75	+ 3,676	γ Delphini. <i>sf.</i>	74. 26	1	20. 39. 19,86	+ 2,784
ε ² Ophiuchi.....	113. 50	1	17. 21. 46,72	+ 3,653	4 Aquarii.....	96. 13	3	20. 43. 2,85	+ 3,181
α Ophiuchi.....	77. 19	39	17. 27. 36,25	+ 2,773	5 Aquarii.....	96. 6	1	20. 43. 47,63	+ 3,178
Piazzi XVII. 300. <i>np.</i>	71. 39	3	17. 49. 28,72	+ 2,627	μ Aquarii.....	99. 34	2	20. 44. 7,66	+ 3,240
γ ² Sagittarii.....	120. 25	2	17. 55. 39,65	+ 3,855	Σ 2738. <i>nf.</i>	74. 10	1	20. 51. 10,72	+ 2,792
70 Ophiuchi. <i>np.</i> ...	87. 27	3	17. 57. 28,30	+ 3,011	59 Cygni. <i>sf.</i>	43. 6	3	20. 54. 27,25	+ 2,036
Σ 2278. {1st star....	33. 35	2	18. 0. 5,89	+ 1,057	Σ 2747. <i>sp.</i>	52. 57	3	20. 56. 11,32	+ 2,345
{2nd star*.	33. 35	1	18. 0. 7,62	+ 1,057	θ Capricorni.....	107. 51	1	20. 57. 3,41	+ 3,379
μ ¹ Sagittarii.....	111. 6	3	18. 4. 19,04	+ 3,586	Σ 2750. <i>sf.</i>	77. 54	1	20. 57. 28,95	+ 2,866
59 Serpentis. <i>sf.</i>	89. 54	3	18. 19. 7,72	+ 3,068	Σ 2759. <i>sf.</i>	58. 11	2	20. 59. 54,76	+ 2,484
δ URSAE MINORIS....	3. 24	37	18. 23. 16,76	- 19,242	Σ 2760. <i>nf.</i>	56. 30	2	21. 0. 19,76	+ 2,446
Σ 2339. <i>sf.</i>	72. 23	3	18. 26. 46,87	+ 2,649	σ Capricorni.....	105. 49	2	21. 6. 59,60	+ 3,330
Σ 2375. <i>np.</i>	84. 40	1	18. 37. 42,59	+ 2,947	ι Capricorni.....	107. 30	2	21. 13. 26,44	+ 3,351
Σ 2400. <i>sf.</i>	73. 55	1	18. 41. 49,74	+ 2,691	β Aquarii.....	96. 16	27	21. 23. 14,29	+ 3,163
Σ 2402.....	79. 30	2	18. 42. 17,54	+ 2,827	ξ Aquarii.....	98. 34	1	21. 29. 20,18	+ 3,194
* (Mag. 8).....	79. 34	1	18. 42. 33,51	+ 2,828	Σ 2813. { <i>np.</i>	33. 14	1	21. 31. 10,14	+ 1,837
Σ 2404. <i>nf.</i>	79. 12	3	18. 43. 19,69	+ 2,820	{ <i>sf.</i>	33. 14	1	21. 31. 11,94	+ 1,837
Σ 2409. <i>sp.</i>	76. 40	3	18. 44. 27,64	+ 2,760	Σ 2815. <i>sp.</i>	33. 9	2	21. 32. 49,22	+ 1,844
σ Sagittarii.....	116. 29	3	18. 45. 28,04	+ 3,723	Piazzi XXI. 248 ||... λ Capricorni.....	33. 13	1	21. 34. 3,77	+ 1,856
Σ 2415. <i>sf.</i>	69. 35	3	18. 47. 44,37	+ 2,584	λ Capricorni.....	102. 5	4	21. 38. 1,34	+ 3,237
Σ 2422.....	64. 7	3	18. 50. 42,42	+ 2,438	δ Capricorni.....	106. 50	2	21. 38. 18,90	+ 3,305
Σ 2448.....	54. 29	1	18. 58. 0,33	+ 2,147	* (Mag. 9, 10). <i>sp.</i> ...	71. 28	3	21. 43. 56,73	+ 2,820
π Sagittarii.....	111. 16	3	19. 0. 21,87	+ 3,573	Σ 2834. <i>sf.</i>	71. 26	1	21. 44. 14,49	+ 2,820
Σ 2466. <i>np.</i>	60. 27	2	19. 1. 43,66	+ 2,340	μ Capricorni.....	104. 17	1	21. 44. 40,47	+ 3,260
Σ 2486. <i>nf.</i>	40. 26	3	19. 8. 0,18	+ 1,570	Σ 2840. <i>nf.</i>	34. 57	2	21. 46. 40,31	+ 2,019
Σ 2499.....	68. 20	3	19. 11. 47,98	+ 2,565	30 Aquarii.....	97. 17	1	21. 54. 57,57	+ 3,159
Σ 2500. <i>sp.</i>	70. 34	3	19. 12. 31,80	+ 2,622	α Aquarii.....	91. 5	24	21. 57. 40,06	+ 3,083
Σ 2504. <i>sf.</i>	71. 9	1	19. 14. 2,47	+ 2,638	ι Aquarii.....	104. 38	1	21. 57. 53,81	+ 3,248
Piazzi XIX. 85.....	94. 1	1	19. 14. 15,06	+ 3,159	Σ 2861. <i>nf.</i>	69. 58	3	21. 58. 34,46	+ 2,824
Piazzi XIX. 149. { <i>sp.</i>	53. 47	1	19. 21. 59,79	+ 2,153	Σ 2878. <i>np.</i>	82. 48	2	22. 6. 36,48	+ 2,990
{ <i>nf.</i>	53. 47	1	19. 22. 0,46	+ 2,153	Σ 2881.....	61. 12	2	22. 7. 22,71	+ 2,724
h ² Sagittarii.....	115. 14	3	19. 27. 5,17	+ 3,656	Σ 2882.....	53. 2	1	22. 7. 24,08	+ 2,596
ε ² Sagittarii.....	106. 29	2	19. 33. 28,72	+ 3,434	θ Aquarii.....	98. 34	2	22. 8. 29,54	+ 3,165
γ Aquilæ.....	79. 46	3	19. 38. 44,98	+ 2,851	Σ 2889. <i>nf.</i>	64. 31	1	22. 9. 0,78	+ 2,774
π Aquilæ.....	78. 34	1	19. 41. 15,54	+ 2,826	ρ Aquarii.....	98. 37	4	22. 11. 52,82	+ 3,163
57 Sagittarii.....	109. 26	2	19. 43. 0,81	+ 3,495	Σ 2905. { <i>np.</i>	75. 39	1	22. 19. 28,54	+ 2,925
α AQUILÆ.....	81. 33	50	19. 43. 4,51	+ 2,925	{ <i>sf.</i>	75. 39	2	22. 19. 28,87	+ 2,925
β AQUILÆ.....	83. 59	48	19. 47. 33,15	+ 2,945	ζ Aquarii. <i>sf.</i>	90. 50	1	22. 20. 41,83	+ 3,079
Σ 2606.....	57. 9	3	19. 52. 26,71	+ 2,309	Λ.S.C. 2697.....	90. 13	3	22. 26. 31,05	+ 3,072
Σ 2609. <i>sp.</i>	52. 19	2	19. 52. 52,33	+ 2,160	η Aquarii.....	90. 56	2	22. 27. 14,11	+ 3,079
Σ 2610. <i>np.</i>	54. 53	2	19. 53. 12,27	+ 2,243	τ ¹ Aquarii. <i>np.</i>	104. 53	3	22. 39. 19,12	+ 3,193
Σ 2613. <i>sf.</i>	79. 41	3	19. 53. 54,47	+ 2,857	Piazzi XXII. 219. { <i>sp.</i>	95. 3	1	22. 39. 40,89	+ 3,111
Σ 2611. <i>sp.</i>	43. 4	1	19. 54. 5,60	+ 1,814	{ <i>nf.</i>	95. 3	1	22. 39. 41,54	+ 3,111
Σ 2616. <i>nf.</i>	75. 51	1	19. 55. 27,30	+ 2,775	λ Aquarii.....	98. 25	2	22. 44. 22,09	+ 3,135
* (Mag. 7, 8).....	74. 59	2	19. 55. 47,18	+ 2,757	β Piscium.....	87. 2	2	22. 55. 50,18	+ 3,051
Σ 2618. <i>np.</i>	74. 58	3	19. 56. 11,46	+ 2,757	β Pegasi.....	62. 46	2	22. 56. 7,51	+ 2,881
Σ 2619. <i>sp.</i>	42. 10	2	19. 56. 21,47	+ 1,780	α PEGASI.....	75. 39	43	22. 56. 53,71	+ 2,977
Σ 2626.....	59. 53	2	19. 57. 56,28	+ 2,396	γ Piscium.....	87. 35	1	23. 8. 58,70	+ 3,058
Σ 2631. <i>sf.</i>	69. 21	4	20. 0. 17,24	+ 2,634	Σ 3012.....	74. 15	3	23. 19. 37,00	+ 3,004
Σ 2635. <i>sp.</i>	82. 1	4	20. 2. 28,96	+ 2,909	Piazzi XXIII. 100. <i>nf.</i>	32. 19	3	23. 22. 36,20	+ 2,727
Piazzi XX. 26. <i>nf.</i> ...	89. 36	1	20. 4. 31,65	+ 3,062	Σ 3024. <i>sf.</i>	47. 3	3	23. 24. 23,80	+ 2,878
Σ 2651. <i>np.</i>	74. 19	3	20. 6. 30,14	+ 2,751	ι Piscium.....	85. 14	3	23. 31. 49,58	+ 3,057
α ² CAPRICORNI.....	103. 2	18	20. 9. 17,02	+ 3,332	λ Piscium.....	89. 5	4	23. 33. 59,08	+ 3,068
Σ 2659†.....	46. 50	2	20. 10. 21,93	+ 2,014	ω Piscium.....	84. 1	2	23. 51. 11,99	+ 3,065
* (Mag. 6, 7).....	76. 6	2	20. 11. 47,74	+ 2,793	* (Mag. 10).....	26. 11	2	23. 56. 3,58	+ 3,024
Σ 2665. <i>sp.</i>	76. 7	2	20. 11. 59,66	+ 2,793	Piazzi XXIII. 276.	61. 51	3	23. 58. 25,63	+ 3,066

* There are three stars.

† The brightest of four.

‡ The south following of the close stars.

|| The brightest of three.

ZENITH DISTANCES
OBSERVED WITH THE MURAL CIRCLE,
AND
CALCULATION
OF
GEOCENTRIC NORTH POLAR DISTANCES.

1842.

Month and Day.	NAME OF STAR or PLANET.	Pointer. " "	Microscopes.						Microm. Reading. "	Correction to Fixed Wire. "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. " "	Observer.
			A	B	C	D	E	F						
Jan. 15	42 Ceti.	300.20	1.25,1	24,8	22,0	19,4	20,9	21,0					300.21.22,48	G.
	A.S.C. 175.	292.10	1.10,8	12,0	9,0	7,3	9,1	8,8					292.11.9,73	G.
	Piazzi I. 191. <i>sp.</i> ...	288.55	4.44,0	44,1	41,8	38,4	39,9	41,8					288.59.42,60	G.
	A.S.C. 203.	297.55	2.12,9	14,0	11,4	9,1	9,2	9,7					297.57.11,48	G.
	Σ 221.	279.25	0.45,0	45,0	43,0	41,3	43,1	42,3					279.25.43,42	G.
Jan. 17	☉ N.L. M.	319.25	2.26,1	25,7	22,9	22,4	23,0	23,8	5,620	+1.34,29			319.28.58,76	G.
	☉ S.L.	320.0	1.27,1	28,8	24,8	24,4	24,2	26,1					320.1.26,18	G.
	) S.L. M.	294.40	4.10,1	10,0	8,0	5,4	6,8	5,8	10,504	-7,82	-2	-7,50	294.43.53,18	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,682	-11,36	-1	-3,75	294.43.53,39	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,843	-14,66			294.43.53,84	G.
	) S.L. M. ....	...	...	...	...	...	...	...	11,060	-19,06	+1	+3,75	294.43.53,19	G.
	) S.L. M. ....	...	...	...	...	...	...	...	11,258	-23,05	+2	+7,50	294.43.52,95	G.
	α Cassiopeiæ R. M.	70.15	0.34,7	36,2	29,7	31,3	32,1	32,3	5,553	+1.35,69			70.17.8,51	G.
	α Cassiopeiæ.	243.20	1.55,8	54,9	52,0	49,9	51,1	50,8					243.21.52,78	G.
	ζ Andromedæ R. M.	38.0	1.24,1	26,0	20,3	21,8	21,9	23,0	8,943	+24,98			38.1.48,11	G.
	ζ Andromedæ.	275.35	2.14,3	15,2	11,5	9,3	11,0	11,2					275.37.12,52	G.
	δ 5 Piscium.	272.10	0.45,0	47,0	42,0	40,5	42,2	41,2					272.10.43,12	G.
	Polaris R. M.	103.0	2.36,0	36,2	31,9	33,3	32,3	33,9	4,862	+1.50,10			103.4.24,55	G.
	Polaris.	210.30	4.39,9	39,4	36,4	35,0	35,8	37,7					210.34.38,28	G.
	φ Piscium.	275.15	1.54,9	56,3	52,8	51,0	52,2	52,8					275.16.53,70	G.
	42 Ceti.	300.20	1.24,6	26,0	20,5	20,1	20,3	20,6					300.21.22,28	G.
	A.S.C. 175.	292.10	1.11,0	11,5	8,3	8,4	8,8	8,8					292.11.9,70	G.
	Piazzi I. 191.	288.55	4.44,8	45,1	41,9	41,3	42,0	41,8					288.59.43,75	G.
	A.S.C. 203.	297.55	2.12,1	14,6	10,4	8,8	9,2	9,7					297.57.11,23	G.
	γ Andromedæ R. M.	56.10	1.26,1	27,7	22,4	22,1	24,5	24,9	10,588	-9,34			56.11.15,56	G.
	γ Andromedæ.	257.25	2.47,0	47,4	45,4	42,9	43,3	43,9					257.27.45,52	G.
	Σ 221.	279.25	0.45,0	46,0	42,1	41,5	42,1	41,6					279.25.43,18	G.
	Σ 285.	266.15	2.54,0	54,1	52,2	49,4	50,8	50,4					266.17.52,38	G.
	Σ 291.	280.50	4.23,9	23,4	21,5	19,1	19,7	21,7					280.54.22,42	G.
	55 Camelop. R. M.	83.30	1.23,3	25,0	19,9	20,9	20,9	19,3	7,978	+45,10			83.32.6,92	G.
	55 Camelopardi.	230.5	1.57,8	56,9	54,2	52,0	53,8	54,0					230.6.55,17	G.
Jan. 19	(a)) S.L. M.	284.10	4.44,2	43,0	41,2	37,4	38,0	39,1	10,773	-13,43	-2	-6,82	284.14.21,17	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,931	-16,56	-1	-3,41	284.14.21,45	G.
	) S.L. M. ....	...	...	...	...	...	...	...	11,100	-20,02			284.14.21,40	G.
	) S.L. M. ....	...	...	...	...	...	...	...	11,233	-22,68	+1	+3,41	284.14.22,15	G.
	) S.L. M. ....	...	...	...	...	...	...	...	11,450	-27,06	+2	+6,82	284.14.21,18	G.
Jan. 24	☉ S.L. M.	318.25	3.20,9	20,0	18,4	16,1	18,0	18,0	6,781	+1.10,07			318.29.29,30	G.
	☉ N.L.	317.55	2.3,9	3,7	3,2	1,8	1,9	2,0					317.57.3,17	G.
	α Cygni R. M.	59.15	3.16,7	16,4	15,8	13,2	14,4	14,8	5,420	+1.38,46			59.19.54,33	G.
	α Cygni.	254.15	4.10,0	9,0	9,4	4,8	7,7	5,0					254.19.8,47	G.
	α Cephei R. M.	76.25	4.16,6	14,9	14,9	12,7	12,2	13,7	3,179	+2.25,19			76.31.40,21	G.
	α Cephei.	237.5	2.24,9	24,3	21,9	19,6	22,7	22,0					237.7.23,03	G.
	Σ 221.	279.25	0.45,0	45,6	43,8	40,8	41,4	42,0					279.25.43,23	G.
	Σ 285.	266.15	2.54,1	53,9	53,8	49,2	49,8	50,3					266.17.52,43	G.
	Σ 291.	280.50	4.23,0	23,1	22,9	18,1	18,9	21,1					280.54.22,05	G.
	H Geminorum.	275.45	0.51,0	50,5	49,1	46,0	47,0	47,9					275.45.48,75	G.
	μ Geminorum.	276.25	1.29,6	28,2	27,8	24,0	25,0	26,0					276.26.27,07	G.
Jan. 25	42 Ceti.	300.20	1.25,5	26,2	22,8	20,9	22,0	22,8					300.21.23,65	G.
	Capella R. M.	60.25	1.21,0	24,4	19,3	20,2	22,3	21,8	9,005	+23,68			60.26.45,46	G.
	Capella.	253.10	2.16,4	16,2	14,8	11,8	13,8	13,7					253.12.14,90	G.
	(b) β Tauri R. M.	43.0	3.27,1	30,2	25,4	24,8	27,8	27,1	4,925	+1.48,78			43.5.16,53	G.
	β Tauri.	270.30	3.44,9	45,4	43,0	39,8	43,8	42,4					270.33.43,97	G.
	(c) H Geminorum.	275.45	0.48,9	48,2	48,4	44,2	46,3	46,2					275.45.47,18	G.
	(c) μ Geminorum.	276.25	1.28,1	26,6	25,8	22,2	25,2	24,0					276.26.25,60	G.
	(d) δ U. Min. SP. R. M.	107.55	2.46,3	48,3	45,3	44,0	46,2	45,4	2,699	+2.35,20			108.0.21,67	G.
	δ Ursæ Minoris SP.	205.35	3.38,8	39,2	36,0	34,4	36,1	36,5					205.38.37,55	G.
	δ Geminorum R. M.	36.50	2.21,0	20,9	18,7	17,8	19,1	19,9	7,485	+55,38			36.53.15,41	G.
	δ Geminorum.	276.45	0.47,0	44,7	45,1	42,7	45,7	44,7					276.45.45,13	G.

On Jan. 13 the Circle was taken from the wall and its axis cleaned; the Telescope was moved on the limb through 69°; Microscope E was replaced, and all the Microscopes were adjusted.

Jan. 14, the horizontal wire was ascertained to be equatorially adjusted.

Runs taken Jan. 24, 1^h. Coincidences at the five wires taken Jan. 31, 23^h.

(a) Very misty and cloudy. (b) Not good. (c) There was a sudden fall of 5° in the temperature of this evening. (d) Cloudy and unsteady.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.	
			Attach.	Free.								
"	" ' "	Inch.	"	"	" "	" "	"	" "	" ' "	"		
	53.31.51,73 45.21.38,98 42.10.11,85 51.7.40,73 32.36.12,67	29,864	33,8	33,0 32,2	1.21,44 1.1,01 54,68 1.14,83 38,63				91.20.21,45 83.9.48,27 79.58.14,81 88.56.3,84 70.23.59,58	+4,08 +7,06 +8,31 +5,13 +11,70	42 Ceti. A.S.C. 175. Piazzi I. 191. <i>sp.</i> A.S.C. 203. Σ 221.	
	72.39.28,01 73.11.55,43 47.54.22,43 47.54.22,64 47.54.23,09 47.54.22,44 47.54.22,20 -3.27.37,76 -3.27.37,97	29,992 30,074	36,0 37,4	38,4 37,3	3.9,59 3.15,91 1.6,54 3,64	8,30 8,33 40.23,56		16.16,60 14.54,21	110.45.54,18 110.45.54,69 84.47.19,48 84.47.19,69 84.47.20,14 84.47.19,49 84.47.19,25 34.19.26,88 34.19.26,67	+21,36	⊙. ⊙.).).).).). α Cassiopeiae R. α Cassiopeiae.	
	28.47.42,64 28.47.41,77 25.21.12,37 -36.14.53,80 -36.14.52,47 28.27.22,95 53.31.51,53 45.21.38,95 42.10.13,00 51.7.40,48	30,32 31,42			33,08 28,52 44,22 32,70 1.21,48 1.1,12 54,68 1.14,84				66.35.24,00 66.35.23,13 63.8.49,17 1.31.30,26 1.31.31,59 66.15.3,93 91.20.21,29 83.9.48,35 79.58.15,96 88.56.3,60	+12,02 +13,22 +27,73 +12,62 +3,96 +6,95 +8,19 +5,00	ζ Andromedæ R. ζ Andromedæ. 65 Piscium. Polaris R. Polaris. φ Piscium. 42 Ceti. A.S.C. 175. Piazzi I. 191. A.S.C. 203.	
	10.38.15,19 10.38.14,77 32.36.12,43 19.28.21,63 34.4.51,67 -16.42.36,17 -16.42.35,58	30,54 31,05	30,094	37,0	36,4	11,35 38,63 21,36 40,86 18,26				48.25.34,82 48.25.34,40 70.23.59,34 57.15.51,27 71.52.40,81 21.4.13,85 21.4.14,44	+18,85 +11,59 +15,80 +10,87 -2,11	γ Andromedæ R. γ Andromedæ. Σ 221. Σ 285. Σ 291. 55 Camelop. R. 55 Camelopardi.
	37.24.50,42 37.24.50,70 37.24.50,65 37.24.51,40 37.24.50,43 71.39.58,55 71.7.32,42 7.29.36,42 7.29.37,72 -9.42.9,46 -9.42.7,72 32.36.12,48 19.28.21,68 34.4.51,30 28.56.18,00 29.36.56,32	30,296 30,108 30,176 30,296 29,770 31,40 31,62	34,1	31,2	31,2	46,95 3.0,39 2.54,95 7,94 10,30 38,79 21,47 41,06 33,32 34,26	33.48,63	15.15,34	74.23.41,68 74.23.41,96 74.23.41,91 74.23.42,66 74.23.41,69 109.13.42,97 109.13.43,43 45.16.52,64 45.16.53,94 28.4.48,52 28.4.50,26 70.23.59,55 57.15.51,43 71.52.40,64 66.43.59,60 67.24.38,86).	
53.31.52,90 6.22.45,29 6.22.44,15 23.44.14,22 23.44.13,22 28.56.16,43 29.36.54,85 -41.10.50,92 -41.10.53,20 29.56.15,34 29.56.14,38	29,564 29,666 30,25 29,61 30,27	53,6 33,0	33,0 30,8	33,0 30,8	1.20,63 6,73 26,47 33,58 34,34 52,82 34,79	8,25 8,22	16.16,00	91.20.21,81 44.10.0,30 44.9.59,16 61.31.48,97 61.31.47,97 66.43.58,29 67.24.37,47 -3.24.35,46 -3.24.37,74 67.43.58,41 67.43.57,45	+3,53 +13,23 +8,28 +4,79 +3,42 -13,08 -0,43	42 Ceti. Capella R. Capella. β Tauri R. β Tauri. H Geminorum. μ Geminorum. δ U. Min. SP. R. δ Ursæ Min. SP. δ Geminorum R. δ Geminorum.		

Coincidence of Micrometer Wire with fixed Wire = 10',129, 10',137, 10',140, 10',146, 10',153 at the five wires.

One Micrometer Revolution = 20",859.

Correction for Runs = + 6",0.

Adopted Zenith Point = 246°.49'.30",75.

Assumed Co-latitude = 37°.47'.8",28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Jan. 25	κ Geminorum.....	274.15	0.40,1	35,8	37,5	34,8	37,0	36,2					274.15.37,02	G.
	η N.L. M.....	277.35	1.56,7	53,7	55,0	51,6	54,2	51,6	8,948	+24,64	-2	+6,34	277.37.25,16	G.
	η N.L. M.....	...	...	...	...	...	...	...	8,816	+27,56	-1	+3,17	277.37.24,91	G.
	η N.L. M.....	...	...	...	...	...	...	...	8,640	+31,29			277.37.25,47	G.
	η N.L. M.....	...	...	...	...	...	...	...	8,507	+34,20	+1	-3,17	277.37.25,21	G.
	η N.L. M.....	...	...	...	...	...	...	...	8,349	+37,63	+2	-6,34	277.37.25,47	G.
	θ Cancri M.....	280.20	1.4,0	2,2	3,0	0,0	1,0	1,8	0,613	+3.18,73			280.24.20,93	G.
	δ Cancri M.....	280.20	1.4,0	2,2	3,0	0,0	1,0	1,8	18,980	-3.4,39			280.17.57,81	G.
Jan. 27	(a) ☉ N.L.....	317.10	2.22,1	23,7	20,2	21,8	20,8	22,4					317.12.22,30	G.
	☉ S.L.....	317.40	4.48,1	48,4	47,4	47,7	48,1	48,0					317.44.48,92	G.
	Σ 285.....	266.15	2.54,0	53,4	53,2	50,0	52,6	50,8					266.17.52,90	G.
	Σ 291.....	280.50	4.24,2	23,6	22,8	20,4	23,0	22,8					280.54.23,67	G.
	α Persei R. M.....	63.50	4.31,0	32,1	29,8	27,8	31,0	31,0	9,850	+6,05			63.54.37,40	G.
	α Persei.....	249.40	4.26,1	23,1	22,9	19,0	23,8	23,4					249.44.23,93	G.
	η Geminorum.....	275.45	0.50,0	47,3	47,2	45,3	47,4	46,0					275.45.47,37	G.
	μ Geminorum.....	276.25	1.29,1	27,1	26,0	24,5	28,2	26,8					276.26.27,25	G.
	(b) δ U. Min. SP. R. M.....	108.0	0.32,5	31,3	29,0	29,9	31,5	31,1	10,433	-6,11			108.0.24,87	G.
	δ Ursæ Min. SP.....	205.35	3.36,8	34,4	32,9	32,1	33,8	34,6					205.38.34,82	G.
	κ Geminorum.....	274.15	0.37,9	36,0	36,8	34,8	35,3	35,2					274.15.36,12	G.
	14 Leonis.....	288.25	0.10,2	12,8	8,6	9,9	10,2	8,9					288.25.10,13	G.
	ε Leonis R. M.....	39.5	1.28,0	31,3	24,9	25,1	29,8	27,5	8,890	+26,34	+2	-0,27	39.6.54,14	G.
	ε Leonis.....	274.30	2.5,6	8,2	6,1	3,1	6,1	3,4			+3	+0,61	274.32.6,44	G.
	(c) δ S.L. M.....	289.30	0.57,6	58,8	55,2	55,4	56,2	55,0	9,850	+5,82	-2	+9,12	289.31.11,49	G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,610	+11,00	-1	+4,56	289.31.12,11	G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,412	+15,19			289.31.11,74	G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,198	+19,77	+1	-4,56	289.31.11,76	G.
	δ S.L. M.....	...	...	...	...	...	...	...	8,940	+25,30	+2	-9,12	289.31.12,73	G.
	Regulus R. M.....	227.20	0.44,8	45,5	40,6	41,5	43,8	42,6	7,910	+46,52			27.21.29,79	G.
	Regulus.....	286.15	2.31,7	32,0	28,8	27,9	30,2	28,9					286.17.30,42	G.
	γ Leonis.....	278.20	3.39,9	40,6	38,0	36,1	39,1	38,1					278.23.39,35	G.
	ρ Leonis.....	388.50	4.37,0	37,8	34,4	33,5	35,8	35,3					288.54.36,55	G.
Jan. 28	☉ S.L. M.....	317.25	4.39,2	38,1	36,6	39,4	36,2	39,9	11,388	-26,03			317.29.12,50	G.
	☉ S.L.....	316.55	1.48,8	48,6	45,1	47,9	45,2	46,9					316.56.47,20	G.
	α Cephei R. M.....	76.30	1.30,0	27,0	25,0	25,6	25,1	27,4	9,612	+11,02			76.31.37,79	G.
	α Cephei.....	237.5	2.26,0	26,9	21,3	22,8	26,0	24,0					237.7.24,65	G.
	β Cephei R. M.....	84.25	2.43,1	40,9	39,9	39,4	40,3	39,9	7,648	+51,98			84.28.32,73	G.
	β Cephei.....	229.10	0.31,8	31,8	27,7	27,0	32,1	28,9					229.10.29,92	G.
	Polaris R. M.....	103.5	0.23,5	22,3	18,6	21,6	20,7	21,0	12,897	-57,51			103.4.23,79	G.
	Polaris.....	210.30	4.38,4	36,9	36,0	35,0	37,3	37,0					210.34.37,05	G.
	φ Piscium.....	275.15	1.56,6	54,0	54,4	52,4	55,4	53,5					275.16.54,50	G.
	γ Andromedæ R. M.....	56.10	1.30,3	31,8	26,2	28,0	31,1	30,9	10,873	-15,29			56.11.14,53	G.
	γ Andromedæ.....	257.25	2.47,7	45,5	46,0	44,2	46,2	45,1					257.27.45,95	G.
Feb. 1	☉ N.L. M.....	315.45	4.43,8	43,8	40,8	41,1	41,1	42,5	6,018	+1.25,99			315.51.8,59	G.
	☉ S.L.....	316.20	3.33,0	33,8	29,9	30,5	32,4	31,8					316.23.32,12	G.
	α Cephei R. M.....	76.30	2.20,3	19,4	17,4	16,8	16,9	17,5	12,148	-41,89			76.31.36,31	G.
	α Cephei.....	237.5	2.27,8	26,9	23,6	23,0	25,1	24,8					237.7.25,33	G.
	α Andromedæ R. M.....	42.45	4.22,5	22,9	19,2	20,3	20,8	21,9	7,321	+58,81			42.50.20,56	G.
	α Andromedæ.....	270.45	3.40,4	40,8	37,9	36,8	40,3	36,1					270.48.38,95	G.
	α Cassiopeæ R. M.....	70.15	2.30,0	30,5	26,5	28,0	28,0	29,8	11,213	-22,38			70.17.6,57	G.
	α Cassiopeæ.....	243.20	1.55,1	54,8	53,1	51,8	53,2	52,2					243.21.53,48	G.
	ζ Andromedæ R. M.....	38.0	1.20,8	23,0	17,4	19,8	20,3	20,2	8,962	+24,58			38.1.44,91	G.
	ζ Andromedæ.....	275.35	2.15,9	15,8	13,0	12,1	11,2	12,9					275.37.13,62	G.
	Polaris R. M.....	103.0	3.29,8	30,0	26,2	27,8	25,2	27,0	7,448	+56,16		-0,73	103.4.23,31	G.
	(d) Polaris.....	210.30	4.38,3	37,1	35,0	34,7	35,8	36,2				+0,63	210.34.37,10	G.
	Σ 274.....	298.35	2.45,3	47,1	42,1	41,8	42,0	42,7					298.37.43,67	G.
	(e) Σ 401.....	271.55	4.63,0	65,1	60,9	60,0	60,5	58,4					272.0.1,32	G.
Feb. 2	(f) ☉ S.L. M.....	316.5	0.26,9	28,8	23,3	26,9	27,5	24,9	7,350	+58,20			316.6.24,62	G.
	☉ N.L.....	315.30	3.60,7	61,2	58,3	58,6	58,0	57,0					315.33.59,22	G.

Runs taken Jan. 31, 23^h.Feb. 1, 4^h. Molyneux fast on Hardy, 1^m.4^s.

(a) Accidentally on the fixed wire.

(b) Extremely cloudy.

(c) Very uneven limb, and extremely misty.

(d) Times of observation by Molyneux, 0^h.58^m.58^s and 0^h.59^m.15^s.

(e) No correction for Runs.

(f) Very misty.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.	
			Attach.	Free.								
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"		
30,67	27.26.6,27	29,686	30,6	28,8	31,40	31.6,36		16.40,57	65.13.45,95	-1,89	κ Geminorum.	
	30.47.54,41								68.21.12,95		δ.	
	30.47.54,16								68.21.12,70		δ.	
	30.47.54,72				36,05				68.21.13,26		δ.	
	30.47.54,46								68.21.13,00		δ.	
	30.47.54,72								68.21.13,26		δ.	
	33.34.50,18			23,7	40,58				71.22.39,04	-5,58	θ Cancri.	
	33.28.27,06				40,42				71.16.15,76		δ Cancri.	
	70.22.51,55	29,600	40,0	42,7	2.42,86	8,18		16.15,60	108.28.50,11		⊙.	
	70.55.18,17	29,700	38,2	37,6	2.47,77				108.28.50,41		⊙.	
	19.28.22,15				21,00	8,21			57.15.51,43	+15,46	Σ 285.	
	34.4.52,92	29,718	36,4	35,5	40,18				71.52.41,38	+10,36	Σ 291.	
	2.54.53,35				36,4				40.42.4,66	+19,91	α Persei R.	
	2.54.53,18								40.42.4,49		α Persei.	
	28.56.16,62				33,00				66.43.57,90	+4,79	H Geminorum.	
	29.36.56,50				33,93				67.24.38,71	+3,44	μ Geminorum.	
29,85	-41.10.54,12				52,19				-3.24.38,03	-13,68	δ U. Min. SP. R.	
	-41.10.55,93								-3.24.39,84		δ Ursæ Min. SP.	
30,29	27.26.5,37		36,0	35,2	31,01				65.13.44,66	-1,85	κ Geminorum.	
	41.35.39,38				52,99				79.23.40,65		-9,58	14 Leonis.
	27.42.36,61				31,37				65.30.16,26		-10,88	ε Leonis R.
	27.42.35,69								65.30.15,34	ε Leonis.		
	42.41.40,74								79.31.44,16	δ.		
30,11	42.41.41,36				55,07	41.18,53		16.41,40	79.31.44,78		δ.	
	42.41.40,99								79.31.44,41		δ.	
	42.41.41,01								79.31.44,43		δ.	
	42.41.41,98								79.31.45,40		δ.	
	39.28.0,96				49,16				77.15.58,40	-11,14	Regulus R.	
	39.27.59,67								77.15.57,11		Regulus.	
	31.34.8,60				36,70				69.21.53,58	-12,77	γ Leonis.	
	42.5.5,80				53,91				79.53.7,99		-12,02	ρ Leonis.
	70.39.41,75	29,776	38,9	40,0	2.47,31	8,19		16.15,50	108.13.13,65		⊙.	
	70.7.16,45				2.42,49				108.13.14,55		⊙.	
31,22	-9.42.7,04	29,814	38,7	37,9	10,13				28.4.51,11	+4,42	α Cephei R.	
	-9.42.6,10								28.4.52,05		α Cephei.	
31,33	-17.39.1,98				18,86				20.7.47,44	+6,74	β Cephei R.	
	-17.39.0,83								20.7.48,59		β Cephei.	
30,42	-36.14.53,04				43,68				1.31.31,56	+27,23	Polaris R.	
	-36.14.53,70								1.31.30,90		Polaris.	
30,24	28.27.23,75				32,29				66.15.4,32	+11,64	φ Piscium.	
	10.38.16,22				37,1				48.25.35,71		+18,24	γ Andromedæ R.
	10.38.15,20				11,21				48.25.34,69			γ Andromedæ.
30,82	69.1.37,84	30,060	40,4	43,3	2.33,80	8,10		16.14,80	107.7.26,62		⊙.	
	69.34.1,37				2.38,17				107.7.24,89		⊙.	
	-9.42.5,56	30,068	43,0	43,2	10,16				28.4.52,56	+3,15	α Cephei R.	
	-9.42.5,42								28.4.52,70		α Cephei.	
29,66	23.59.10,39				26,44				61.46.45,11	+10,38	α Andromedæ R.	
	23.59.8,20								61.46.42,92		α Andromedæ.	
30,03	-3.27.35,82				3,60				34.19.28,86	+19,28	α Cassiopeiæ R.	
	-3.27.37,27								34.19.27,41		α Cassiopeiæ.	
29,27	28.47.45,84				32,71				66.35.26,83	+10,43	ζ Andromedæ R.	
	28.47.42,87								66.35.23,86		ζ Andromedæ.	
30,21	-36.14.52,56	30,084	41,8	42,2	43,68				1.31.32,02	+26,83	Polaris R.	
	-36.14.53,65								1.31.30,95		Polaris.	
	51.48.12,92	30,100	40,2		1.16,05				89.36.37,25	+3,89	Σ 274.	
	25.10.30,57				39,0				28,21		62.58.7,06	+12,55	Σ 401.
	69.16.53,87	30,086	42,5	43,8	2.35,81	8,11		16.14,70	106.50.15,15		⊙.	
	68.44.28,47				2.31,54				106.50.14,91		⊙.	

Coincidence of Micrometer Wire with fixed Wire = 10', 129, 10', 137, 10', 140, 10', 146, 10', 153 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = +6'', 0. From Jan. 28 = +1'', 9.

Adopted Zenith Point = 246°. 49'. 30'', 75.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.
			A	B	C	D	E	F						
Feb. 2	α Cassiopeiæ R. M.	70.15	2.21,1	22,3	17,3	20,8	18,4	20,3	10,885	-15,53			70.17.465	G.
	α Cassiopeiæ.....	243.20	1.57,1	54,0	54,0	52,5	54,8	52,1					243.21.54,20	G.
Feb. 3	\odot N.L. M.....	315.15	1.29,2	28,0	26,1	25,4	26,1	24,9	9,975	+3,44			315.16.30,14	G.
	\odot S.L.	315.45	3.55,5	55,3	53,7	52,4	53,1	52,0					315.48.53,92	G.
Feb. 5	α Arietis R. M....	37.15	4.22,0	23,8	18,4	19,0	17,5	21,3	7,812	+48,57			37.20.9,17	G.
	α Arietis.....	276.15	3.54,0	54,0	52,0	49,0	48,9	49,9					276.18.51,55	G.
	Σ 274.....	298.35	2.44,9	44,9	42,3	41,3	39,9	41,3					298.37.42,60	G.
	β U. Min. SP. R. M.	119.45	1.30,8	31,3	27,4	28,8	25,8	27,4	6,510	+1.15,73			119.47.44,41	G.
	β Ursæ Minoris SP.	193.50	1.18,6	18,0	16,0	14,6	13,4	15,3					193.51.16,07	G.
	(a) Σ 401.....	271.55	4.64,6	64,5	62,4	60,7	59,6	59,5					272.0.1,88	G.
Feb. 11	(b) \odot N.L. M.....	312.45	0.15,0	14,9	12,7	12,9	13,8	11,7	5,048	+1.46,12			312.46.59,64	G.
	\odot S.L.	313.15	4.22,7	23,0	20,7	20,3	20,8	20,6					313.19.21,70	G.
	α Cygni R. M.....	59.15	4.22,7	21,0	17,6	19,7	20,2	20,5	8,850	+26,80			59.19.47,43	G.
	α Cygni.....	254.15	4.13,1	11,8	9,6	9,7	13,0	9,1					254.19.11,38	G.
Feb. 12	(c) \odot S.L. M.....	312.55	4.15,7	15,1	12,0	13,0	12,2	12,7	9,207	+19,66	+3	+0,40	312.59.33,84	G.
	(d) \odot N.L.....	312.25	2.13,0	13,3	8,8	11,8	10,0	8,8			+4½	+0,43	312.27.11,56	G.
Feb. 13	α Aquilæ R. M....	23.0	3.25,2	24,5	21,6	21,8	19,8	22,1	5,990	+1.26,46			23.4.49,23	G.
	α Aquilæ.....	290.30	4.15,1	13,3	11,2	10,0	8,3	9,7					290.34.11,60	G.
	α Cygni R. M.....	59.15	4.20,0	18,8	17,0	16,9	16,3	17,0	8,751	+28,87			59.19.46,89	G.
	α Cygni.....	254.15	4.15,0	13,2	13,0	10,8	12,4	10,8					254.19.12,87	G.
	α Cephei R. M....	76.30	2.31,8	29,9	27,5	29,1	26,2	27,6	12,889	-57,44			76.31.31,44	G.
	α Cephei.....	237.5	2.33,6	31,5	27,5	29,1	28,3	28,8					237.7.30,00	G.
Feb. 14	\odot S.L. M.....	312.15	3.32,0	30,2	27,3	29,2	26,6	27,4	8,085	+42,76			312.19.11,83	G.
	\odot N.L.....	311.45	1.52,3	52,0	48,8	51,1	48,2	48,4					311.46.50,28	G.
	Castor R. M.....	46.45	4.24,8	23,8	20,1	20,3	18,8	21,7	6,154	+1.23,04			46.50.44,97	G.
	Castor.....	266.45	3.18,3	16,9	15,2	13,8	10,7	13,4					266.48.14,98	G.
	(e) Procyon R. M....	20.10	3.19,9	19,3	16,2	16,3	13,6	15,8	4,783	+1.51,64			20.15.8,76	G.
	Procyon.....	293.20	3.55,1	55,0	52,6	51,2	49,8	50,0					293.23.52,60	G.
	(e) Pollux R. M.....	42.55	4.26,0	26,2	21,2	21,8	19,9	23,0	4,894	+1.49,32			43.1.12,69	G.
	Pollux.....	270.35	2.51,0	49,0	46,6	45,3	43,0	44,9					270.57.46,85	G.
	(f) λ U. Min. SP. R. M.	105.40	3.16,5	16,2	13,1	14,8	9,8	12,0	2,809	+2.32,82			105.45.46,80	G.
	λ Ursæ Minoris SP.	207.50	3.18,4	16,8	14,2	13,7	10,8	13,9					207.53.14,88	G.
Feb. 15	\odot N.L. M.....	311.25	2.27,0	28,5	21,9	24,8	22,0	22,7	13,061	-1.1,04			311.26.23,64	G.
	\odot S.L.....	311.55	3.45,5	45,9	40,9	42,5	40,8	40,9					311.58.43,05	G.
	(g) \odot S.L. M.....	285.55	4.6,0	3,9	2,1	1,5	0,0	0,4	10,990	-17,83			285.58.44,80	G.
	\odot S.L. M.....	...	...	...	...	...	...	...	11,238	-22,93	+1	+3,45	285.58.43,15	G.
	\odot S.L. M.....	...	...	...	...	...	...	...	11,389	-25,94	+2	+6,90	285.58.43,59	G.
	Σ 535.....	288.0	1.10,9	11,7	7,4	9,4	6,4	7,3					288.1.8,95	G.
	Aldebaran R. M....	30.45	2.26,3	27,0	21,8	23,1	20,2	23,8	6,579	+1.14,18			30.48.38,08	G.
	Aldebaran.....	282.50	0.24,4	23,3	19,7	21,0	17,4	18,8					282.50.20,80	G.
	(h) Σ 577.....	261.45	4.43,7	42,9	40,0	40,0	37,8	39,3					261.49.40,98	G.
	ω Aurigæ.....	261.20	3.15,2	13,4	11,4	11,4	10,8	10,5					261.23.12,37	G.
	Capella R. M.....	60.25	2.26,4	27,0	22,8	23,6	22,7	24,2	11,870	-36,19			60.26.48,46	G.
	Capella.....	253.10	2.16,0	13,6	12,4	11,8	9,4	11,0					253.12.12,55	G.
Feb. 16	(i) β Tauri R. M....	43.0	3.26,8	28,3	22,0	23,2	23,3	24,3	4,898	+1.49,25			43.5.14,17	G.
	β Tauri.....	270.30	3.46,0	45,1	41,6	41,8	40,2	41,8					270.33.43,05	G.
	\odot S.L. M.....	311.35	3.24,8	22,4	19,4	20,1	19,0	19,3	11,012	-18,30			311.38.2,80	G.
	\odot N.L.....	311.5	0.45,2	43,9	41,1	42,0	41,0	39,9					311.5.42,23	G.
	α Androm. R. M....	42.50	0.23,9	23,3	17,0	20,0	19,3	20,8	10,278	-2,98			42.50.17,75	G.
	α Andromedæ.....	270.45	3.44,2	43,8	40,8	40,6	40,7	40,3					270.48.42,03	G.
Feb. 16	Polaris R. M....	103.0	4.16,3	15,1	13,4	13,8	11,0	12,0	9,822	+6,53			103.4.20,46	G.
	Polaris.....	210.30	4.41,9	40,8	38,4	38,2	39,0	38,4					210.34.39,82	G.
	β Arietis.....	278.55	4.37,9	37,0	34,0	34,8	33,3	33,8					278.59.35,50	G.

Runs taken Feb. 14. 11^h.Coincidence at middle wire taken Feb. 18. 22^h.

(a) No correction for Runs. (b) Without the dark glass: very unsatisfactory. (c) Without the dark glass.
 (d) Pretty good. (e) Too much wind. (f) Faint. (g) Cloudy at this wire and taken somewhat hurriedly,
 the observer having just come from the Transit observation. (h) Very faint. (i) Very cloudy: barely visible.
 Not used for zenith point.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	"	"	"	"	° ' "	"	"
29,43	- 3 . 27 . 33,90	30,110	44,5	45,3	3,59				34 . 19 . 30,79	+ 19,10	α Cassiopeiae R.
	- 3 . 27 . 36,55								34 . 19 . 28,14		α Cassiopeiae.
	68 . 26 . 59,39	30,364	42,3	42,8	2 . 31,02	8,07		16 . 14,50	106 . 32 . 45,12		\odot .
	68 . 59 . 23,17				2 . 35,23	8,10			106 . 32 . 44,08		\odot .
30,36	29 . 29 . 21,58	30,154	38,0	36,7	34,16				67 . 17 . 4,02	+ 11,40	α Arietis R.
	29 . 29 . 20,80								67 . 17 . 3,24		α Arietis.
30,24	51 . 48 . 11,85			36,0	1 . 16,78				89 . 36 . 36,91	+ 3,71	Σ 274.
	- 52 . 58 . 13,66				1 . 20,07				- 15 . 12 . 25,45	- 29,54	β U. Min. SP. R.
	- 52 . 58 . 14,68								- 15 . 12 . 26,47		β Ursae Min. SP.
	25 . 10 . 31,13		36,7	34,5	28,53				62 . 58 . 7,94	+ 12,42	Σ 401.
	65 . 57 . 28,89	29,888	50,0	50,6	2 . 9,70	7,91		16 . 13,10	104 . 2 . 52,06		\odot .
	66 . 29 . 50,95				2 . 13,01	7,94			104 . 2 . 51,20		\odot .
29,41	7 . 29 . 43,32	29,954	51,0	51,5	7,66				45 . 16 . 59,26	- 5,57	α Cygni R.
	7 . 29 . 40,63								45 . 16 . 56,57		α Cygni.
	66 . 10 . 3,09	29,950	52,8	53,3	2 . 10,51	7,92		16 . 12,90	103 . 43 . 1,06		\odot .
	65 . 37 . 40,81				2 . 7,31	7,88			103 . 43 . 1,42		\odot .
30,42	43 . 44 . 41,52	30,348	42,8	43,0	57,39				81 . 32 . 47,19	- 8,21	α Aquilae R.
	43 . 44 . 40,85								81 . 32 . 46,52		α Aquilae.
29,88	7 . 29 . 43,86	30,370	44,3	45,1	7,87				45 . 17 . 0,01	- 6,09	α Cygni R.
	7 . 29 . 42,12								45 . 16 . 58,27		α Cygni.
30,72	- 9 . 42 . 0,69	30,378	45,8	46,7	10,19				28 . 4 . 57,40	- 0,84	α Cephei R.
	- 9 . 42 . 0,75								28 . 4 . 57,34		α Cephei.
	65 . 29 . 41,08	30,384	46,0	48,0	2 . 9,75	7,87		16 . 12,50	103 . 2 . 38,74		\odot .
	64 . 57 . 19,53				2 . 6,62	7,84			103 . 2 . 39,09		\odot .
29,98	19 . 58 . 45,78	30,424	42,8	41,1	21,96				57 . 46 . 16,02	+ 1,03	Castor R.
	19 . 58 . 44,23								57 . 46 . 14,47		Castor.
30,68	46 . 34 . 21,99				1 . 3,74				84 . 22 . 34,01	- 4,93	Procyon R.
	46 . 34 . 21,85								84 . 22 . 33,87		Procyon.
29,77	23 . 48 . 18,06				26,65				61 . 35 . 52,99	- 0,70	Pollux R.
	23 . 48 . 16,10								61 . 35 . 51,03		Pollux.
30,84	- 38 . 56 . 16,05	30,418	42,4	40,1	48,87				- 1 . 9 . 56,64	- 4,99	λ U. Min. SP. R.
	- 38 . 56 . 15,87								- 1 . 9 . 56,46		λ Ursae Min. SP.
	64 . 56 . 52,89	30,388	48,7	48,8	2 . 4,51	7,81		16 . 12,30	102 . 42 . 10,17		\odot .
	65 . 9 . 12,30				2 . 7,56	7,85			102 . 42 . 7,99		\odot .
	39 . 9 . 14,05	30,378	48,8	48,3				15 . 3,33	76 . 7 . 26,46		γ .
	39 . 9 . 12,40				48,36	34 . 40,90			76 . 7 . 24,81		γ .
29,44	39 . 9 . 12,84								76 . 7 . 25,25		γ .
	41 . 11 . 38,20		45,3	43,8	52,46				78 . 59 . 38,94	+ 5,11	Σ 535.
	36 . 0 . 52,67				43,58				73 . 48 . 44,53	+ 6,53	Aldebaran R.
	36 . 0 . 50,05								73 . 48 . 41,91		Aldebaran.
	15 . 0 . 10,23				16,08				52 . 47 . 34,59	+ 13,59	Σ 577.
	14 . 33 . 41,62				15,58				52 . 21 . 5,48	+ 13,02	ω Aurigae.
30,51	6 . 22 . 42,29			43,2	6,71				44 . 9 . 57,28	+ 14,73	Capella R.
	6 . 22 . 41,80								44 . 9 . 56,79		Capella.
(28,61)	23 . 44 . 16,58				26,41				61 . 31 . 51,27	+ 8,65	β Tauri R.
	23 . 44 . 12,30								61 . 31 . 46,99		β Tauri.
	64 . 48 . 32,05	30,474	46,0	46,7	2 . 6,50	7,83		16 . 12,10	102 . 21 . 26,90		\odot .
	64 . 16 . 11,48				2 . 3,49	7,79			102 . 21 . 27,56		\odot .
29,89	23 . 59 . 13,00	30,450	47,4	48,5	26,49				61 . 46 . 47,77	+ 8,07	α Andromedae R.
	23 . 59 . 11,28								61 . 46 . 46,05		α Andromedae.
30,14	- 36 . 14 . 49,71	30,436	47,7	48,1	43,65				1 . 31 . 34,92	+ 24,53	Polaris R.
	- 36 . 14 . 50,93				37,45				1 . 31 . 33,70		Polaris.
	32 . 10 . 4,75								69 . 57 . 50,48	+ 9,38	β Arietis.

Coincidence of Micrometer Wire with fixed Wire = 10', 129, 10', 137, 10', 140, 10', 146, 10', 153 at the five wires. From Feb. 11 = 10', 125, 10', 132, 10', 135, 10', 139, 10', 145.

One Micrometer Revolution = 20'', 859.

Correction for Runs = + 1'', 9. From Feb. 11 = + 2'', 4.

Adopted Zenith Point = 246°. 49'. 30'', 75.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		0	"	"	"	"	"	"	τ.	"		"	0	
Feb. 16	γ Androm. R. M.	56. 5	4. 38,7	37,0	33,4	34,2	34,4	36,2	5,528	+ 1. 36,11			56. 11. 12,13	G.
	γ Andromedæ	257. 25	2. 50,1	49,2	47,9	47,7	46,8	46,2					257. 27. 48,20	G.
	) S.L. M.	281. 15	4. 19,6	18,2	16,0	17,1	14,0	16,0	10,491	- 7,64	-2	- 6,15	281. 19. 3,38	G.
	) S.L. M.	...	...	...	...	...	...	...	10,601	- 9,78	-1	- 3,07	281. 19. 4,32	G.
	(a)) S.L. M.	...	...	...	...	...	...	...	10,750	- 12,83			281. 19. 4,34	G.
	(b) ν Arietis	277. 45	0. 8,8	8,9	5,2	6,3	4,9	2,9			-2	+ 0,23	277. 45. 6,40	G.
	Σ 535	288. 0	1. 12,0	10,0	7,9	9,0	6,0	7,2					288. 1. 8,77	G.
Feb. 17	(b) ν Arietis	277. 45	0. 8,4	7,8	5,9	6,9	5,3	2,9					277. 45. 6,20	G.
	ε Arietis	278. 15	4. 21,9	20,1	19,0	18,8	17,0	18,3					278. 19. 19,53	G.
	) S.L. M.	277. 25	1. 35,3	33,7	31,0	31,4	30,5	29,7	10,361	- 4,93	-2	- 4,91	277. 26. 22,21	G.
	) S.L. M.	...	...	...	...	...	...	...	10,480	- 7,26	-1	- 2,46	277. 26. 22,33	G.
	) S.L. M.	...	...	...	...	...	...	...	10,597	- 9,63			277. 26. 22,42	G.
	) S.L. M.	...	...	...	...	...	...	...	10,707	- 11,85	+1	+ 2,46	277. 26. 22,66	G.
	) S.L. M.	...	...	...	...	...	...	...	10,853	- 14,77	+2	+ 4,91	277. 26. 22,19	G.
	α Persei R. M.	63. 50	4. 20,7	20,0	16,4	16,2	16,2	15,9	9,231	+ 18,85			63. 54. 36,77	G.
	α Persei	249. 40	4. 28,3	26,4	24,0	22,8	23,1	25,0					249. 44. 25,28	G.
	g Arietis	274. 50	2. 6,9	5,4	3,8	3,8	1,1	1,0					274. 52. 3,83	G.
	Σ 401	272. 0	0. 6,0	3,1	1,8	1,7	1,0	0,0					272. 0. 2,27	G.
	η Tauri R. M.	38. 10	2. 24,2	25,0	18,4	19,9	19,0	20,3	5,265	+ 1. 41,59			38. 14. 2,91	G.
	(d) η Tauri	275. 20	4. 60,0	59,0	56,0	56,3	55,9	54,0					275. 24. 56,87	G.
	ζ U. Min. SP. R. M.	116. 20	0. 20,6	20,0	14,8	17,0	14,8	15,1	12,889	- 57,44			116. 19. 19,63	G.
	ζ Ursæ Minoris SP.	197. 15	4. 44,9	43,2	40,0	40,5	38,9	41,0					197. 19. 41,78	G.
	Σ 535	288. 0	1. 12,4	10,5	8,0	9,0	6,4	7,0					288. 1. 8,97	G.
	Σ 577	261. 45	4. 42,2	42,0	41,2	39,8	37,7	38,8					261. 49. 40,65	G.
	ω Aurigæ	261. 20	3. 16,7	14,8	13,2	12,8	12,0	12,1					261. 23. 13,85	G.
	ε U. Min. SP. R. M.	112. 15	4. 38,8	37,2	34,6	35,1	34,0	35,0	12,257	- 44,27			112. 18. 51,88	G.
	ε Ursæ Minoris SP.	201. 15	5. 12,0	10,1	9,1	7,0	6,0	7,5					201. 20. 9,03	G.
	Σ 694	274. 10	3. 25,0	23,0	22,3	20,7	18,6	20,2					274. 13. 21,90	G.
	118 Tauri	274. 0	0. 49,2	47,8	46,5	45,5	43,5	44,0					274. 0. 46,15	G.
	Polaris R. M.	103. 0	4. 42,1	39,5	37,5	39,0	35,4	37,1	11,038	- 18,83			103. 4. 20,09	G.
	Polaris	210. 30	4. 42,9	40,2	38,8	39,0	38,0	39,4					210. 34. 40,20	G.
	η Tauri R. M.	38. 10	4. 36,3	35,8	31,2	32,7	32,0	33,4	11,621	- 31,00			38. 14. 3,03	G.
	η Tauri	275. 20	4. 60,0	57,5	57,3	54,4	54,0	55,1					275. 24. 56,90	G.
	ζ U. Min. SP. R. M.	116. 15	4. 29,1	27,2	24,6	25,8	23,0	25,1	10,523	- 8,10			116. 19. 18,17	G.
	ζ Ursæ Minoris SP.	197. 15	4. 45,1	42,0	40,2	40,1	38,4	40,9					197. 19. 41,60	G.
	) S.L. M.	274. 40	0. 50,3	47,9	47,1	46,5	45,3	45,5	10,544	- 8,74	-2	- 3,08	274. 40. 35,36	G.
	) S.L. M.	...	...	...	...	...	...	...	10,605	- 9,86	-1	- 1,54	274. 40. 35,78	G.
	) S.L. M.	...	...	...	...	...	...	...	10,678	- 11,32			274. 40. 35,86	G.
	) S.L. M.	...	...	...	...	...	...	...	10,770	- 13,17	+1	+ 1,54	274. 40. 35,55	G.
	) S.L. M.	...	...	...	...	...	...	...	10,859	- 14,89	+2	+ 3,08	274. 40. 35,37	G.
	Σ 535	288. 0	1. 12,1	9,8	8,2	8,3	5,3	7,1					288. 1. 8,58	G.
	ν ¹ Tauri	276. 30	4. 43,2	40,9	40,0	37,2	39,2	38,9					276. 34. 40,38	G.
	Σ 577	261. 45	4. 45,2	41,1	42,0	40,0	37,8	39,3					261. 49. 41,38	G.
	τ Tauri	276. 20	2. 50,4	47,3	46,7	44,0	45,2	45,1					276. 22. 46,73	G.
	ω Aurigæ	261. 20	3. 16,9	13,0	12,8	11,3	9,7	11,8					261. 23. 12,92	G.
	Σ 644	261. 55	1. 21,8	18,0	17,4	16,7	13,5	15,2					261. 56. 17,23	G.
Feb. 18	Capella R. M.	60. 25	1. 26,5	26,1	21,9	23,1	21,0	23,0	8,990	+ 23,88			60. 26. 47,63	G.
	Capella	253. 10	2. 18,0	14,0	14,3	11,9	10,1	11,9					253. 12. 13,60	G.
	Σ 694	274. 10	3. 25,9	22,4	22,9	19,9	18,4	20,0					274. 13. 21,93	G.
	118 Tauri	274. 0	0. 48,9	46,8	46,3	44,6	43,3	43,6					274. 0. 45,67	G.
	α Cephei R. M.	76. 30	2. 29,5	27,9	25,6	27,5	25,0	25,7	12,828	- 56,18			76. 31. 30,94	G.
	α Cephei	237. 5	2. 35,0	32,2	29,9	31,0	29,0	30,9					237. 7. 31,60	G.
	⊙ N.L. M.	310. 0	2. 32,9	32,1	28,0	31,0	28,1	27,8	9,909	+ 4,72			310. 2. 34,97	G.
	⊙ S.L.	310. 30	4. 55,8	55,0	54,0	53,0	53,8	51,7					310. 34. 54,38	G.
	α Androm. R. M.	42. 45	4. 22,8	22,3	18,9	19,1	19,4	20,0	7,359	+ 57,91			42. 50. 18,78	G.
	(e) α Andromedæ	270. 45	3. 44,0	43,9	40,7	41,3	40,2	40,4			+2	+ 0,32	270. 48. 42,45	G.
	β Arietis	278. 55	4. 39,1	37,0	35,2	34,7	33,1	35,0					278. 59. 36,15	G.
	(f) α Persei R. M.	63. 50	4. 36,1	36,0	31,7	34,3	31,8	34,0	10,070	+ 1,35			63. 54. 35,80	G.
	α Persei	249. 40	4. 28,0	25,5	23,0	22,6	22,9	23,7					249. 44. 24,73	G.

Runs taken Feb. 18. 22^h.

- (a) Clouded at this wire, and then completely hid.
 (b) Very faint.
 (c) Both stars bisected.

- (d) No correction for Runs.
 (e) Very faint and unsatisfactory.
 (f) Too near the fixed wire for a good bisection.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
30,17	10.38.18,62	30,436	47,7	48,1	11,19	31.26,29		15.13,68	48.25.38,09	+16,28	γ Andromedæ R.
	10.38.17,45								48.25.36,92		γ Andromedæ.
	34.29.32,63								71.30.41,85)
	34.29.33,57								71.30.42,79)
	34.29.33,59								71.30.42,81)
	30.55.35,65	30,432	46,0	44,7	35,68				68.43.19,61	+10,16	ν Arietis.
	41.11.38,02								78.59.38,75		Σ 535.
	30.55.35,45								68.43.19,42		ν Arietis.
	31.29.48,78								69.17.33,60		ϵ Arietis.
	30.36.51,46								67.40.30,75)
31,03	30.36.51,58	30,240	45,6	44,8	35,69	28.38,14		15.26,14	67.40.30,87	+9,89)
	30.36.51,67								67.40.30,96)
	30.36.51,91								67.40.31,20)
	30.36.51,44								67.40.30,73)
	2.54.53,98								40.42.5,30		α Persei R.
	2.54.54,53	30,236	45,2	44,2	36,54				40.42.5,85	+19,34	α Persei.
	28.2.33,08								65.50.13,18		γ Arietis.
	25.10.31,52								62.58.7,88		Σ 401.
	28.35.27,84								66.23.8,74		η Tauri R.
	28.35.26,12								66.23.7,02		η Tauri.
29,89	-49.29.48,88	30,250	43,8	42,7	32,62	1.9,98			-11.43.50,58	-28,91	ζ U. Min. SP. R.
	-49.29.48,97								-11.43.50,67		ζ Ursæ Min. SP.
	41.11.38,22								78.59.38,93		Σ 535.
	15.0.9,90								52.47.34,25		Σ 577.
	14.33.43,10								52.21.6,96		ω Aurigæ.
	-45.29.21,13	30,288	43,0	43,1	43,89	1.1,05			-7.43.13,90	-25,54	ϵ U. Min. SP. R.
	-45.29.21,72								-7.43.14,49		ϵ Ursæ Min. SP.
	27.23.51,15								65.11.30,56		Σ 694.
	27.11.15,40								64.58.54,53		118 Tauri.
	-36.14.49,34								1.31.35,05		Polaris R.
30,15	-36.14.50,55	30,314	42,8	41,5	32,77	1.10,38			1.31.33,84	+24,13	Polaris.
	28.35.27,72								66.23.8,77		η Tauri R.
	28.35.26,15								66.23.7,20		η Tauri.
	-49.29.47,42								-11.43.49,52		ζ U. Min. SP. R.
	-49.29.49,15								-11.43.51,25		ζ Ursæ Min. SP.
29,97	27.51.4,61	30,314	42,8	41,0	32,77	1.10,38			64.56.25,08	-28,95)
	27.51.5,03								64.56.25,50)
	27.51.5,11								64.56.25,58)
	27.51.4,80								64.56.25,27)
	27.51.4,62								64.56.25,09)
29,89	41.11.37,83	30,288	43,0	43,1	43,89	1.1,05			78.59.38,88	+5,00	Σ 535.
	29.45.9,63								67.32.52,39		ν Tauri.
	15.0.10,63								52.47.35,08		Σ 577.
	29.33.15,98								67.20.58,47		τ Tauri.
	14.33.42,17								52.21.6,13		ω Aurigæ.
30,62	15.6.46,48	30,300	41,4	42,0	10,26				52.54.11,06	+12,34	Σ 644.
	6.22.43,12								44.9.58,15		Capella R.
	6.22.42,85								44.9.57,88		Capella.
	27.23.51,18								65.11.30,79		Σ 694.
	27.11.14,92								64.58.54,25		118 Tauri.
31,27	-9.42.0,19	30,288	43,5	44,9	1.57,68	7,72			28.4.57,83	-2,39	α Cephei R.
	-9.41.59,15								28.4.58,87		α Cephei.
	63.13.4,22								101.18.13,96		\odot .
	63.45.23,63								101.18.13,12		\odot .
	23.59.11,97								61.46.46,61		α Andromedæ R.
30,61	23.59.11,70	30,244	46,5	57,5	26,36	7,75			61.46.46,34	+7,59	α Andromedæ.
	32.10.5,40								69.57.50,96		β Arietis.
	2.54.54,95								40.42.6,27		α Persei R.
	2.54.53,98								40.42.5,30		α Persei.
30,27		30,208	46,8	46,7	37,28					+9,10	
30,27		30,184	45,0	43,8	3,04					+19,24	

Coincidence of Micrometer Wire with fixed Wire = 10',125, 10',132, 10',135, 10',139, 10',145 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = + 2'',4. From Feb. 18 = + 3'',1.

Adopted Zenith Point = 246°. 49'. 30'',75.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire.	Correction to Middle Wire. " "	Concluded reading of Circle. ° ' "			Observer.
			A	B	C	D	E	F								
Feb. 19	<i>g</i> Arietis.....	274.50	2. 6,0	5,7	3,0	3,0	1,8	0,9					274. 52. 3,62			G.
	<i>η</i> Tauri R. M.....	38. 10	2. 33,0	32,5	27,3	29,0	28,0	29,1	5,701	+1. 32,49			38. 14. 2,56			G.
	(a) <i>η</i> Tauri.....	275.20	4. 60,7	59,8	56,8	56,4	55,7	55,0					275. 24. 57,40			G.
	<i>ζ</i> U. Min. SP. R. M.	116.20	0. 13,8	13,1	9,3	12,0	8,2	8,9	12,643	- 52,32			116. 19. 18,58			G.
	(b) <i>ζ</i> Ursæ Minoris SP.	197. 15	4. 45,4	43,8	39,0	41,8	40,0	41,0					197. 19. 41,80			G.
	(b) <i>ν</i> ¹ Tauri.....	276.30	4. 42,8	41,0	38,1	37,9	39,3	37,9					276. 34. 39,47			G.
	2 Camelopardi....	245.50	2. 54,2	52,1	50,3	49,0	46,9	49,9					245. 52. 50,68			G.
	<i>τ</i> Tauri.....	276.20	2. 49,7	47,6	45,1	43,9	44,5	44,1					276. 22. 46,10			G.
	<i>Σ</i> 644.....	261.55	1. 46,4	44,8	42,3	42,4	40,2	40,9	11,288	- 24,05			261. 56. 18,97			G.
	(c) <i>δ</i> S.L. M.....	273.20	2. 63,8	62,2	60,2	58,0	57,7	57,4	10,719	- 12,39	-2	- 0,64	273. 22. 47,17			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	10,692	- 11,68	-1	- 0,32	273. 22. 48,20			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	10,737	- 12,56			273. 22. 47,64			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	10,772	- 13,21	+1	+ 0,32	273. 22. 47,31			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	10,809	- 13,85	+2	+ 0,64	273. 22. 46,99			G.
	<i>β</i> Tauri R. M.....	43. 0	4. 18,8	19,4	14,9	15,0	15,0	15,7	7,230	+1. 0,59			43. 5. 17,49			G.
	<i>β</i> Tauri.....	270.30	3. 46,9	44,6	42,7	42,0	40,7	42,0					270. 33. 43,53			G.
	118 Tauri.....	274. 0	0. 48,6	47,4	46,2	44,8	42,3	43,8					274. 0. 45,60			G.
	C Tauri.....	271.25	2. 44,0	42,0	41,7	39,9	38,9	39,1					271. 27. 41,22			G.
Feb. 21	<i>α</i> Persei R. M.....	63.50	4. 28,2	27,2	24,8	24,7	22,3	24,8	9,633	+ 10,47			63. 54. 36,25			G.
	<i>α</i> Persei.....	249.40	4. 28,7	25,6	24,0	23,9	22,2	24,8					249. 44. 25,32			G.
	<i>η</i> Tauri R. M.....	38. 10	4. 35,1	34,5	30,2	32,1	30,7	33,2	11,601	- 30,58			38. 14. 2,52			G.
	<i>η</i> Tauri.....	275.20	4. 61,0	58,3	58,1	55,7	55,7	56,1					275. 24. 58,00			G.
	<i>ζ</i> U. Min. SP. R. M.	116.15	4. 44,9	43,5	39,5	41,9	38,4	40,2	11,129	- 20,73			116. 19. 21,15			G.
	<i>ζ</i> Ursæ Minoris SP.	197. 15	4. 42,8	40,1	37,9	38,9	35,9	38,3					197. 19. 39,47			G.
	2 Camelopardi....	245.50	2. 54,2	51,1	50,9	49,0	46,9	49,9					245. 52. 50,62			G.
	(d) * <i>ℛ</i> . 6 ^h . 19 ^m . 46 ^s .	278. 5	2. 16,3	13,1	12,7	10,9	11,1	10,8					278. 7. 12,72			G.
	(d) * <i>ℛ</i> . 6 ^h . 21 ^m . 2 ^s . M.	278. 5	2. 16,3	13,1	12,7	10,9	11,1	10,8	5,214	+1. 42,65			278. 8. 55,37			G.
	<i>ε</i> Geminorum.....	273.40	4. 59,3	55,8	57,2	53,0	53,8	53,2					273. 44. 55,90			G.
	<i>ζ</i> Geminorum.....	278.10	3. 61,8	58,2	59,0	55,8	56,9	55,9					278. 13. 58,33			G.
	<i>δ</i> N.L. M.....	275.35	3. 38,0	35,0	34,0	32,6	32,5	33,8	9,076	+ 21,88	-2	+ 4,88	275. 39. 1,44			G.
	<i>δ</i> N.L. M.....	...	...	...	...	...	...	...	8,961	+ 24,43	-1	+ 2,44	275. 39. 1,55			G.
	<i>δ</i> N.L. M.....	...	...	...	...	...	...	...	8,800	+ 27,85			275. 39. 2,53			G.
	<i>δ</i> N.L. M.....	...	...	...	...	...	...	...	8,720	+ 29,60	+1	- 2,44	275. 39. 1,84			G.
	<i>δ</i> N.L. M.....	...	...	...	...	...	...	...	8,623	- 31,75	+2	- 4,88	275. 39. 1,55			G.
	<i>ν</i> Geminorum.....	271.45	2. 30,0	27,2	26,8	24,7	23,4	25,0					271. 47. 26,43			G.
	Pollux R. M.....	43. 0	2. 27,2	27,0	23,0	24,0	22,4	24,2	13,590	- 1. 12,06			43. 1. 12,82			G.
	Pollux.....	270.35	2. 51,0	48,0	46,9	45,7	43,3	45,8					270. 37. 47,07			G.
	<i>λ</i> U. Min. SP. R. M.	105.45	2. 19,9	19,0	16,4	17,8	14,1	15,6	14,258	- 1. 26,01			105. 45. 51,36			G.
Feb. 22	<i>λ</i> Ursæ Minoris SP.	207.50	3. 16,2	13,1	11,4	10,8	8,3	11,1					207. 53. 12,15			G.
	<i>θ</i> Cancri.....	280.20	4. 25,1	21,3	21,8	19,8	18,5	20,1					280. 24. 21,55			G.
	<i>δ</i> Cancri.....	280.15	2. 61,9	59,0	60,1	57,7	56,2	56,9					280. 17. 58,93			G.
	⊙ S.L. M.....	309.25	4. 28,0	27,2	24,8	25,2	22,3	24,8	7,887	+ 46,89			309. 30. 12,72			G.
	⊙ N.L.....	308.55	2. 57,2	57,0	53,2	54,5	52,3	52,4					308. 57. 54,73			G.
Feb. 24	<i>ι</i> Ursæ Major. R. M.	63.15	1. 29,8	31,0	26,6	29,5	27,9	28,8	11,211	- 22,45			63. 16. 6,63			G.
	<i>ι</i> Ursæ Majoris....	250.20	2. 57,2	56,7	54,9	54,0	54,8	53,7					250. 22. 55,52			G.
	14 Leonis.....	288.25	0. 14,6	15,0	11,4	13,6	11,9	11,1					288. 25. 12,95			G.
	Regulus R. M. ...	27.20	0. 29,1	29,9	24,2	26,7	26,8	26,7	7,251	+ 1. 0,16			27. 21. 27,44			G.
	Regulus.....	286.15	2. 37,0	37,0	33,1	34,1	32,9	33,8					286. 17. 34,92			G.
	(c) <i>δ</i> N.L. M.....	291.50	3. 13,9	14,1	10,2	11,0	9,3	10,4	0,726	+ 3. 16,06	-2	+ 9,38	291. 56. 37,26			G.
	<i>δ</i> N.L. M.....	...	...	...	...	...	...	...	0,500	+ 3. 20,92	-1	+ 4,69	291. 56. 37,43			G.
	<i>δ</i> S.L. M.....	292.30	0. 35,0	34,0	31,8	33,0	32,7	32,0					292. 30. 33,13			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	9,952	+ 3,91	+1	- 4,69	292. 30. 32,35			G.
	<i>δ</i> S.L. M.....	...	...	...	...	...	...	...	9,720	+ 8,86	+2	- 9,38	292. 30. 32,61			G.
Feb. 25	<i>χ</i> Leonis.....	290.50	0. 23,8	23,8	20,0	21,2	21,2	20,6					290. 50. 21,80			G.
	32 Orionis M.....	293.10	1. 24,8	24,0	21,6	20,4	20,0	20,1	8,276	+ 38,78			293. 12. 0,73			G.
	33 Orionis.....	295.50	1. 16,4	16,5	14,0	13,8	11,5	12,1					295. 51. 14,18			G.
	<i>Σ</i> 757.....	299.15	3. 11,2	9,2	8,1	6,1	6,4	5,9					299. 18. 8,13			G.

(a) No correction for Runs. (b) Small negative correction for Runs. (c) Limb very uneven. (d) 15 Geminorum precedes the first of these about 1^m. There is no such star as 17 Geminorum. (e) Very misty. The observation at the third wire was unsatisfactory. Both limbs were uneven; N.L. not full. The correction applied for defect of illumination = - 0^u.45.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
29,98	28. 2. 32,87	30,184	45,0	43,8	31,74				65. 50. 12,89	+ 10,78	g Arietis.
	28. 35. 28,19			42,5	32,56				66. 23. 9,03	+ 10,27	η Tauri R.
	28. 35. 26,65								66. 23. 7,49		η Tauri.
30,19	- 49. 29. 47,83				1. 9,86				- 11. 43. 49,41	- 28,99	ζ U. Min. SP. R.
	- 49. 29. 48,95								- 11. 43. 50,53		ζ Ursæ Min. SP.
	29. 45. 8,72			41,1	34,25				67. 32. 51,25	+ 8,94	υ ¹ Tauri.
30,51	- 0. 56. 40,07	30,170	41,6		0,99				36. 50. 27,22	+ 18,80	2 Camelopardi.
	29. 33. 15,35				33,98				67. 20. 57,61	+ 8,50	τ Tauri.
	15. 6. 48,22			39,6	16,23				52. 54. 12,73	+ 12,35	Σ 644.
	26. 33. 16,42								63. 39. 3,72).
	26. 33. 17,45								63. 39. 4,75).
	26. 33. 16,89				30,03	25. 55,11		15. 55,90	63. 39. 4,19).
	26. 33. 16,56								63. 39. 3,86).
	26. 33. 16,24								63. 39. 3,54).
	23. 44. 13,26				26,42				61. 31. 47,96	+ 8,69	β Tauri R.
	23. 44. 12,78				30,86				61. 31. 47,48		β Tauri.
	27. 11. 14,85				27,57				64. 58. 53,99	+ 7,40	118 Tauri.
	24. 38. 10,47	30,160	40,8	39,2					62. 25. 46,32	+ 6,99	C Tauri.
30,78	2. 54. 54,50	29,660	41,8	41,0	3,00				40. 42. 5,78	+ 19,09	α Persei R.
	2. 54. 54,57								40. 42. 5,85		α Persei.
30,26	28. 35. 28,23			40,3	32,15				66. 23. 8,66	+ 10,17	η Tauri R.
	28. 35. 27,25								66. 23. 7,68		η Tauri.
30,31	- 49. 29. 50,40	29,732	39,0		1. 8,97				- 11. 43. 51,09	- 28,90	ζ U. Min. SP. R.
	- 49. 29. 51,28								- 11. 43. 51,97		ζ Ursæ Min. SP.
	- 0. 56. 40,13				0,97				36. 50. 27,18	+ 18,82	2 Camelopardi.
	31. 17. 41,97			36,9	36,19				69. 5. 26,44	+ 2,82	* R. 6 ^h . 19 ^m . 46 ^s .
	31. 19. 24,62				36,24				69. 7. 9,14	+ 2,74	* R. 6 ^h . 21 ^m . 2 ^s .
	26. 55. 25,15				30,24				64. 43. 3,67	+ 3,30	ε Geminorum.
	31. 24. 27,58			36,2	36,41				69. 12. 12,27	+ 0,66	ζ Geminorum.
	28. 49. 30,69	29,740	38,0	36,1					66. 24. 47,25).
	28. 49. 30,80								66. 24. 47,36).
	28. 49. 31,78				32,83	28. 50,00		16. 25,45	66. 24. 48,34).
	28. 49. 31,09								66. 24. 47,65).
	28. 49. 30,80								66. 24. 47,36).
	24. 57. 55,68				27,78				62. 45. 31,74	+ 0,19	υ Geminorum.
	23. 48. 17,93				26,32				61. 35. 52,53	- 0,28	Pollux R.
	23. 48. 16,32								61. 35. 50,92		Pollux.
	- 38. 56. 20,61	29,756	37,8	36,0	48,22				- 1. 10. 0,55	- 7,08	λ U. Min. SP. R.
	- 38. 56. 18,60				39,63				- 1. 9. 58,54	- 5,72	λ Ursæ Min. SP.
	33. 34. 50,80				39,47				71. 22. 38,71	- 6,61	θ Cancri.
	33. 28. 28,18								71. 16. 15,93		δ Cancri.
31,08	62. 40. 41,97	29,646	41,0	43,2	1. 52,97	7,67		16. 10,80	100. 13. 24,75		⊙.
	62. 8. 23,98				1. 50,44	7,63			100. 13. 25,87		⊙.
31,18	3. 33. 24,12	29,092	43,0	41,6	3,59				41. 20. 35,99	- 2,26	ι Ursæ Maj. R.
	3. 33. 24,77								41. 20. 36,64		ι Ursæ Majoris.
	41. 35. 42,20			40,4	51,32				79. 23. 41,80	- 11,24	14 Leonis.
	39. 28. 3,31				47,60				77. 15. 59,19	- 12,64	Regulus R.
	39. 28. 4,17								77. 16. 0,05		Regulus.
	45. 7. 6,51			39,9	58,10	43. 14,53			82. 28. 40,81).
	45. 7. 6,68								82. 28. 40,98).
	45. 41. 2,38								82. 28. 46,82).
	45. 41. 1,60				59,25	43. 40,19		16. 42,90	82. 28. 46,04).
	45. 41. 1,86								82. 28. 46,30).
	44. 0. 51,05				55,90				81. 48. 55,23	- 15,51	χ Leonis.
	46. 22. 29,98	29,230	39,0	37,5	1. 1,29				84. 10. 39,55	+ 0,69	32 Orionis.
	49. 1. 43,43				1. 7,25				86. 49. 58,96	- 0,21	33 Orionis.
	52. 28. 37,38				1. 16,01				90. 17. 1,67	- 1,59	Σ 757.

Coincidence of Micrometer Wire with fixed Wire = 10', 125, 10', 132, 10', 135, 10', 139, 10', 145 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = + 3'', 1.

Adopted Zenith Point = 246°. 49'. 30'', 75.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.			Observer.
			A	B	C	D	E	F								
			"	"	"	"	"	"					"	"	"	
Feb. 25	ζ Orionis.....	301. 0	2. 58,1	57,2	56,3	53,9	53,4	53,0					301. 2. 55,62			G.
	52 Orionis.....	292. 35	2. 49,9	49,0	46,0	46,1	45,0	46,1					292. 37. 47,30			G.
	15 Geminorum...	278. 5	3. 57,9	57,1	55,9	53,1	54,8	53,8					278. 8. 55,83			G.
	(a) * R. 6 ^h . 19 ^m . 46 ^s ...	278. 5	3. 57,9	57,1	55,9	53,1	54,8	53,8	15,017	-1. 41,84			278. 7. 13,99			G.
	(a) * R. 6 ^h . 21 ^m . 2 ^s ...	278. 5	3. 57,9	57,1	55,9	53,1	54,8	53,8	10,068	+1. 40			278. 8. 57,23			G.
	ε Geminorum.....	273. 40	4. 59,0	57,5	58,3	53,4	54,0	54,7					273. 44. 56,67			G.
	ι Ursæ Maj. R. M.	63. 10	4. 50,0	51,6	48,0	47,8	46,1	49,0	6,402	+1. 17,87			63. 16. 7,12			G.
	ι Ursæ Majoris....	250. 20	2. 58,9	56,1	56,4	53,7	54,9	54,5					250. 22. 56,05			G.
	υ Ursæ Maj. R. M.	74. 20	3. 18,9	20,9	17,0	17,9	15,9	18,3	10,668	-11,12			74. 23. 7,36			G.
	υ Ursæ Majoris...	239. 15	0. 59,4	57,0	56,0	54,8	54,3	55,3					239. 15. 56,23			G.
	48 Leonis.....	291. 15	0. 47,0	45,2	43,9	43,3	42,3	42,8					291. 15. 44,15			G.
	χ Leonis.....	290. 50	0. 24,2	22,0	20,1	20,1	16,8	19,9					290. 50. 20,55			G.
	(b) S.L. M.....	299. 25	4. 11,6	8,5	7,9	5,3	4,8	6,7	9,627	+10,39	-2	+9,54	299. 29. 27,83			G.
	S.L. M.....	...	...	...	...	...	...	...	9,408	+15,10	-1	+4,77	299. 29. 27,77			G.
	S.L. M.....	...	...	...	...	...	...	...	9,180	+19,91			299. 29. 27,81			G.
	S.L. M.....	...	...	...	...	...	...	...	8,970	+24,39	+1	-4,77	299. 29. 27,52			G.
	S.L. M.....	...	...	...	...	...	...	...	8,765	+28,79	+2	-9,54	299. 29. 27,15			G.
	υ Leonis.....	298. 55	3. 33,4	29,0	27,8	27,8	25,8	27,9					298. 58. 28,98			G.
	β Virginis...	296. 20	2. 15,4	12,1	11,0	9,9	7,3	9,8					296. 22. 11,15			G.
	α Cygni R. M.....	59. 15	4. 32,1	31,0	29,8	28,4	27,8	29,8	9,430	+14,70			59. 19. 44,98			G.
	α Cygni.....	254. 15	4. 18,8	15,9	17,4	14,7	14,9	15,0					254. 19. 16,55			G.
Feb. 26	⊙ S.L. M.....	307. 55	4. 35,4	35,8	33,3	33,1	33,2	32,6	3,729	+2. 13,62			308. 1. 47,99			G.
	⊙ N.L.....	307. 25	4. 31,3	30,3	28,0	28,6	28,1	28,0					307. 29. 29,52			G.
	48 Leonis.....	291. 15	0. 46,6	46,4	44,0	43,7	43,1	42,3					291. 15. 44,42			G.
	(d) α Ursæ Majoris R.	77. 10	2. 26,0	26,7	23,1	23,9	21,1	23,3					77. 12. 24,27			G.
	α Ursæ Majoris...	236. 25	1. 41,8	38,5	36,4	36,7	37,0	37,9					236. 26. 38,22			G.
	(e) δ Leonis R. M....	36. 0	0. 25,1	25,1	21,7	22,4	20,9	22,5	10,416	-5,86			36. 0. 17,12			G.
	δ Leonis.....	277. 35	3. 47,8	45,1	44,4	42,5	42,7	42,8					277. 38. 44,60			G.
	υ Leonis.....	298. 55	3. 31,8	30,0	26,3	26,5	25,0	26,8					298. 58. 28,08			G.
	β Virginis M....	296. 20	2. 37,7	35,3	33,1	32,7	30,9	33,7	11,275	-23,78			296. 22. 10,39			G.
	γ Ursæ Maj. R. M.	69. 5	4. 25,7	26,4	22,8	23,1	21,5	23,0	6,358	+1. 18,79			69. 10. 42,99			G.
	γ Ursæ Majoris...	244. 25	3. 24,4	20,9	18,8	18,3	17,1	20,0					244. 28. 20,27			G.
	(f) S.L. M.....	306. 20	1. 63,6	61,1	61,5	58,8	59,2	59,1	9,555	+11,89	-2	+9,16	306. 22. 21,80			G.
	S.L. M.....	...	...	...	...	...	...	...	9,322	+16,90	-1	+4,58	306. 22. 22,23			G.
	S.L. M.....	...	...	...	...	...	...	...	9,125	+21,07			306. 22. 21,82			G.
	S.L. M.....	...	...	...	...	...	...	...	8,914	+25,55	+1	-4,58	306. 22. 21,72			G.
	S.L. M.....	...	...	...	...	...	...	...	8,704	+30,05	+2	-9,16	306. 22. 21,64			G.
Feb. 28	q Virginis.....	307. 35	0. 40,7	38,6	37,7	35,5	35,8	36,6					307. 35. 37,55			G.
	ψ Virginis.....	307. 40	1. 39,8	37,6	36,6	34,2	34,8	35,3					307. 41. 36,55			G.
Mar. 1	⊙ S.L. M.....	307. 10	4. 52,2	53,5	50,4	50,8	51,2	49,8	4,710	+1. 53,21			307. 16. 44,49			G.
	⊙ N.L.....	306. 40	4. 29,9	30,0	27,2	27,1	28,6	26,2					306. 44. 28,13			G.
Mar. 1	Σ 559.....	281. 20	0. 60,2	58,0	56,5	56,8	54,9	56,0					281. 20. 57,07			G.
	2 Camelopardi....	245. 50	2. 53,8	50,4	49,2	48,2	47,8	49,7					245. 52. 49,83			G.
	Σ 644.....	261. 55	1. 21,0	17,9	17,0	17,9	15,4	15,9					261. 56. 17,50			G.
	Capella R. M....	60. 25	1. 31,2	30,8	26,6	28,9	27,8	29,4	9,271	+18,07			60. 26. 47,17			G.
	Capella.....	253. 10	2. 17,2	14,0	12,0	12,0	10,9	12,1					253. 12. 13,02			G.
	Σ 694.....	274. 10	3. 26,1	23,0	23,1	21,8	21,8	22,6					274. 13. 23,05			G.
	32 Orionis M....	293. 10	1. 28,7	25,8	24,4	24,2	23,5	24,1	8,389	+36,46			293. 12. 1,56			G.
	33 Orionis.....	295. 50	1. 19,8	17,8	16,0	14,1	14,1	13,3					295. 51. 15,83			G.
	(g) Σ 734.....	300. 50	1. 14,1	12,2	11,1	10,0	9,8	9,2					300. 51. 11,07			G.
	λ Orionis.....	289. 10	2. 9,5	6,1	4,4	5,4	3,1	3,1					289. 12. 5,25			G.
	Σ 757.....	299. 15	3. 11,8	9,4	7,9	7,7	6,5	7,0					299. 18. 8,37			G.
	ζ Orionis.....	301. 0	2. 60,6	57,8	57,1	55,8	55,1	54,3					301. 2. 56,77			G.
	52 Orionis.....	292. 35	2. 50,9	49,1	46,2	47,0	45,7	46,4					292. 37. 47,53			G.
	ι Ursæ Maj. R. M.	63. 10	4. 24,7	24,0	21,3	21,2	22,5	23,5	5,058	+1. 45,95			63. 16. 8,78			G.
	ι Ursæ Majoris....	250. 20	2. 57,9	55,0	54,3	53,0	52,5	53,8					250. 22. 54,40			G.
	α Cephei SP. R. M.	132. 40	1. 26,9	26,1	22,4	24,9	24,4	23,8	15,638	-1. 54,75			132. 39. 29,98			G.
	α Cephei SP.....	180. 55	4. 33,1	30,1	29,4	30,0	28,7	31,6					180. 59. 30,45			G.

Coincidence at the middle wire taken Mar. 8. 19^h.Runs taken Feb. 27. 22^h. The result is used from Feb. 28, when there was a considerable rise of temperature.

(a) Very faint. (b) Uneven. (c) S.L. without dark glass: both observations unsatisfactory. (d) Accidentally on fixed wire; a pretty good bisection. (e) Too much wind. (f) Great waving. (g) The second and brightest of three stars near each other.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
31,58	54.13.24,87	29,230	39,0	37,5	1.20,99				92.1.54,14	-2,23	ζ Orionis.
	45.48.16,55				1.0,08				83.36.24,91	+0,20	52 Orionis.
	31.19.25,08	29,242	38,3	36,4	35,67				69.7.9,03	+2,95	15 Geminorum.
	31.17.43,24				35,64				69.5.27,16	+2,85	* R. 6 ^h . 19 ^m . 46 ^s .
	31.19.26,48				35,68				69.7.10,44	+2,76	* R. 6 ^h . 21 ^m . 2 ^s .
	26.55.25,92				29,78				64.45.3,98	+3,59	ε Geminorum.
	3.33.23,63	29,256	36,8	35,7	3,65				41.20.35,56	-2,09	ι Ursæ Maj. R.
	3.33.25,30								41.20.37,23		ι Ursæ Majoris.
	-7.33.36,61			35,0	7,81				30.13.23,86	-5,72	υ Ursæ Maj. R.
	-7.33.34,52								30.13.25,95		υ Ursæ Majoris.
31,80	44.26.13,40	29,264	36,3	34,5	57,72				82.14.19,40	-14,20	48 Leonis.
	44.0.49,80				56,87				81.48.54,95	-15,57	χ Leonis.
	52.39.57,08			34,3					89.23.26,85)).
	52.39.57,02								89.23.26,79)).
	52.39.57,06				1.17,14	48.17,92		16.37,73	89.23.26,83)).
	52.39.56,77								89.23.26,54)).
	52.39.56,40								89.23.26,17)).
	52.8.58,23				1.15,72				89.57.22,23	-16,15	υ Leonis.
	49.32.40,40				1.9,02				87.20.57,70	-16,78	β Virginis.
	7.29.45,77	29,300	38,4	37,5	7,72				45.17.1,77	-9,01	α Cygni R.
30,77	7.29.45,80								45.17.1,80		α Cygni.
	61.12.17,24	29,350	42,6	43,2	1.45,18	7,56			98.44.53,24		⊙.
	60.39.58,77				1.42,90	7,52		16.9,90	98.44.52,33		⊙.
	44.26.13,67	29,516	36,3	35,4	58,10				82.14.20,05	-14,24	48 Leonis.
	-10.22.53,52			35,0	10,88				27.24.3,88	-13,23	α Ursæ Maj. R.
	-10.22.52,53								27.24.4,87		α Ursæ Majoris.
	30.49.13,63				35,41				68.36.57,32	-16,25	δ Leonis R.
	30.49.13,85								68.36.57,54		δ Leonis.
	52.8.57,33	29,530	36,6	34,2	1.16,42				89.57.22,03	-16,26	υ Leonis.
	49.32.39,64				1.9,67				87.20.57,59	-16,87	β Virginis.
31,63	-2.21.12,24				2,45				35.25.53,59	-18,75	γ Ursæ Maj. R.
	-2.21.10,48								35.25.55,35		γ Ursæ Majoris.
	59.32.51,05	29,536	36,0	33,8					96.13.21,04)).
	59.32.51,48								96.13.21,47)).
	59.32.51,07				1.40,97	51.51,91		16.27,35	96.13.21,06)).
	59.32.50,97								96.13.20,96)).
	59.32.50,89								96.13.20,88)).
	60.46.6,80				1.46,05				98.35.1,13	-15,97	q Virginis.
	60.52.5,80				1.46,48				98.41.0,56	-16,01	ψ Virginis.
	60.27.13,74	29,530	47,0	47,1	1.41,82	7,50		16.9,40	97.59.46,94		⊙.
30,10	59.54.57,38				1.39,64	7,46			97.59.47,24		⊙.
	34.31.26,20	29,356	44,2	43,1	39,92				72.19.14,40	+6,68	Σ 559.
	-0.56.41,04				0,96				36.50.26,28	+18,65	2 Camelopardi.
	15.6.46,63	29,378	43,4	42,4	15,71				52.54.10,62	+12,33	Σ 644.
	6.22.43,70				6,51				44.9.58,49	+15,02	Capella R.
	6.22.42,15								44.9.56,94		Capella.
	27.23.52,18				30,15				65.11.30,61	+7,45	Σ 694.
	46.22.30,69				1.0,97				84.10.39,94	+0,57	32 Orionis.
	49.1.44,96				1.6,90				86.50.0,14	-0,34	33 Orionis.
	54.1.40,20				1.20,00				91.50.8,48	-2,07	Σ 734.
31,59	42.22.34,38				53,04				80.10.35,70	-1,75	λ Orionis.
	52.28.37,50	29,392	43,0	42,0	1.15,72				90.17.1,50	-1,76	Σ 757.
	54.13.25,90				1.20,68				92.1.54,86	-2,41	ζ Orionis.
	45.48.16,66				59,85				83.36.24,79	+0,07	52 Orionis.
	3.33.22,09	29,466	41,0	40,3	3,64				41.20.34,01	-1,41	ι Ursæ Maj. R.
	3.33.23,53								41.20.35,45		ι Ursæ Majoris.
	-65.49.59,11	29,480	40,8	40,0	2.10,03				-28.5.0,86	-5,47	α Cephei SP. R.
	-65.50.0,42								-28.5.2,17		α Cephei SP.

Coincidence of Micrometer Wire with fixed Wire = 10', 125, 10', 132, 10', 135, 10', 139, 10', 145 at the five wires. From

Feb. 28 = 10', 127, 10', 134, 10', 137, 10', 141, 10', 147.

One Micrometer Revolution = 20'', 859.

Correction for Runs = + 3'', 1. From Feb. 28 = - 0'', 2.

Adopted Zenith Point = 246°. 49'. 30'', 75. From March 1 = 246°. 49'. 30'', 87.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Mar. 1	δ Cephei SP. R. M.	129.10	4.33,3	31,8	30,2	31,8	29,1	31,8	16,031	-2. 2,95			129.12.28,35	G.
	δ Cephei SP.....	184.25	1.34,9	33,0	30,4	33,0	29,9	33,1					184.26.32,37	G.
Mar. 3	15 Geminorum....	278. 5	3.58,0	55,0	53,4	54,1	52,0	54,4					278. 8.54,45	G.
	* \mathcal{R} . 6 ^h . 19 ^m . 46 ^s ..	278. 5	3.58,0	55,0	53,4	54,1	52,0	54,4	15,038	-1.42,23			278. 7.12,22	G.
	* \mathcal{R} . 6 ^h . 21 ^m . 2 ^s ...	278. 5	3.58,0	55,0	53,4	54,1	52,0	54,4	10,069	+1,42			278. 8.55,87	G.
	Σ 953. <i>sf</i>	289.50	3.56,0	53,5	51,3	53,8	50,4	52,7					289.53.52,92	G.
	Σ 1037.....	271.30	2.42,8	40,0	38,1	40,5	38,3	39,3					271.32.39,82	G.
	(a) Σ 1083.....	278.10	3.47,8	44,0	43,4	44,0	42,4	43,9					278.13.44,22	G.
Mar. 4	α Lyrae R. M.	53.10	4.13,8	14,6	11,3	12,7	11,7	14,0	7,968	+45,25			53.14.58,20	G.
	α Lyrae.....	260.20	4. 6,4	2,0	3,7	1,0	0,1	1,5					260.24. 2,38	G.
	β Lyrae R. M.	47.45	3.21,5	20,5	17,3	18,4	15,6	18,9	11,959	-38,01			47.47.40,64	G.
	β Lyrae.....	265.50	1.24,0	20,3	19,9	19,0	17,8	18,4					265.51.19,88	G.
	(b) Jupiter S.L.....	321.20	3.59,7	58,2	56,0	55,5	53,8	55,7					321.23.56,42	G.
Mar. 5	Σ 757.....	299.15	3.10,7	8,8	6,7	7,9	5,3	5,5					299.18. 7,43	G.
	ζ Orionis.....	301. 0	2.57,8	55,2	54,5	54,6	51,8	52,7					301. 2.54,38	G.
	52 Orionis.....	292.35	2.49,7	47,1	44,8	46,8	44,8	44,6					292.37.46,25	G.
	Σ 840.....	288.15	0.57,1	54,1	54,1	55,8	52,8	52,3					288.15.54,35	G.
	Σ 848.....	285. 0	2.24,0	22,1	20,3	21,0	18,1	19,4					285. 2.20,78	G.
	Σ 1037.....	271.30	2.43,8	41,0	40,5	39,6	37,9	38,8					271.32.40,22	G.
	δ Draco. SP. R. M.	127.10	3.17,1	15,9	13,0	15,4	12,3	13,1	13,106	-1. 1,93			127.12.12,49	G.
	δ Draconis SP.	186.25	1.52,2	48,9	46,4	48,9	46,0	48,1					186.26.48,38	G.
	Σ 1083. <i>sp</i>	278.10	3.47,1	42,9	43,4	42,8	41,3	43,0					278.13.43,35	G.
	(c) Σ 1116.....	286.20	3. 6,9	5,5	3,8	4,5	1,4	3,4					286.23. 4,20	G.
	5 Argus.....	310.45	4. 7,3	3,2	4,1	3,8	1,2	2,0					310.49. 3,53	G.
	14 Canis Minoris..	296.20	2.53,6	50,0	50,0	49,0	47,2	48,1					296.22.49,60	G.
	A.S.C. 985.....	296.15	0.33,1	29,8	28,8	28,9	26,5	27,9					296.15.29,17	G.
	(d) Regulus R. M.	27.20	0.33,9	31,1	26,5	29,0	26,9	28,8	7,237	+1. 0,49			27.21.29,86	G.
	Regulus.....	286.15	2.37,1	33,0	32,3	32,5	29,2	32,1					286.17.32,65	G.
	ζ Cephei SP. R. M.	137.10	1.36,1	36,0	31,0	35,0	31,3	33,9	19,003	-3. 4,94			137. 8.28,91	G.
	ζ Cephei SP.....	176.30	0.35,9	32,6	31,5	33,8	30,8	33,4					176.30.32,98	G.
	γ Leonis.....	278.20	3.42,1	38,1	37,2	37,1	34,0	38,5					278.23.37,77	G.
	ρ Leonis.....	288.50	4.41,6	38,2	37,0	37,8	36,8	37,4					288.54.38,05	G.
Mar. 7	(e) \odot N.L. M.....	304. 0	2.28,1	27,8	24,4	25,4	24,0	23,9	6,886	+1. 7,81			304. 3.33,38	G.
	\odot S.L.....	304.35	0.47,9	47,2	44,0	45,1	45,0	43,4					304.35.45,42	G.
Mar. 8	(f) \odot S.L. M.....	304.10	2.19,0	20,8	15,1	18,6	14,2	16,1	9,680	+9,53			304.12.26,80	G.
	\odot N.L.....	303.40	0.15,3	16,0	10,3	14,5	10,7	11,1					303.40.12,98	G.
	(g) Jupiter S.L.....	321.15	4.27,8	27,1	23,8	24,0	22,5	24,3					321.19.24,85	G.
Mar. 9	\odot N.L. M.	303.10	4.39,7	38,2	35,8	34,2	35,4	34,1	3,754	+2.13,14			303.16.49,29	G.
	\odot S.L.....	303.45	3.64,6	62,9	61,5	61,1	58,2	59,1					303.49. 1,17	G.
Mar. 10	(h) \odot S.L. M.	303.20	4.17,2	16,9	15,1	14,3	13,4	13,9	6,369	+1.18,60			303.25.33,67	G.
	\odot N.L.....	302.50	3.24,7	23,5	20,6	21,0	19,7	20,0					302.53.21,53	G.
	Σ 840.....	288.15	0.57,8	55,5	54,7	56,4	54,8	53,7					288.15.55,47	G.
	Σ 848.....	285. 0	2.24,0	22,3	20,8	20,1	20,2	19,4					285. 2.21,10	G.
	15 Geminorum....	278. 5	3.57,0	55,2	54,6	52,8	53,3	52,9					278. 8.54,23	G.
	* \mathcal{R} . 6 ^h . 19 ^m . 46 ^s . M.	278. 5	3.57,0	55,2	54,6	52,8	53,3	52,9	15,065	-1.42,80			278. 7.11,43	G.
	* \mathcal{R} . 6 ^h . 21 ^m . 2 ^s . M.	278. 5	3.57,0	55,2	54,6	52,8	53,3	52,9	10,020	+2,45			278. 8.56,68	G.
	Σ 1116.....	286.20	3. 6,6	4,2	2,8	2,7	1,8	2,3					286.23. 3,49	G.
	Piazzi VII. 170...	293.25	1. 5,8	2,4	1,8	1,3	0,7	0,0			+2	+0,14	293.26. 1,98	G.
	5 Argus.....	310.45	4. 7,9	3,8	4,0	2,3	2,2	1,7					310.49. 3,58	G.
	14 Canis Minoris..	296.20	2.53,9	49,6	49,8	48,7	49,4	48,1			+3	+0,06	296.22.49,93	G.
	A.S.C. 985.....	296.15	0.33,9	29,4	28,7	28,2	27,9	28,1					296.15.29,37	G.
	11 Cancri.....	271. 5	0.54,0	50,3	50,5	49,4	48,8	48,7					271. 5.50,27	G.
	Σ 1200.....	248.45	2.37,9	31,7	33,7	32,0	32,3	33,8					248.47.33,52	G.
	(i) Regulus R. M.	27.20	1.18,1	17,0	13,4	14,9	14,0	13,4	9,517	+13,15	+2	-0,14	27.21.28,13	G.
	Regulus.....	286.15	2.36,1	32,2	31,4	30,6	31,8	30,8			+3	+0,30	286.17.32,40	G.

Runs taken March 5, 11^h₂.

(a) 'Extremely faint:' probably from atmospheric causes, the star being a bright one. (b) Worth little, so very faint. Micrometer for N.L. not being read, the Tabular Semidiameter is used. (c) Very faint. (d) Unsatisfactory. (e) Very cloudy. (f) Badly defined. (g) Faint. (h) Bad definition and great motion. (i) A blur bisected hurriedly: both observations unsatisfactory.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
30,36	-62.22.57,48	29,510	40,0	39,5	1.51,92				-24.37.41,12	+4,74	Cephei SP. R.
	-62.22.58,50								-24.37.42,14		Cephei SP.
	31.19.23,58	29,750	50,0	50,0	35,29				69.7.7,15	+2,29	15 Geminorum.
	31.17.41,35				35,25				69.5.24,88	+2,88	* R. 6 ^h .19 ^m .46 ^s .
	31.19.25,00				35,29				69.7.8,57	+2,79	* R. 6 ^h .21 ^m .2 ^s .
	43.4.22,05				54,18				80.52.24,51	-1,61	Σ 953. sf.
30,29	24.43.8,95	29,744	49,8	49,7	26,71				62.30.43,94	+2,30	Σ 1037.
	31.24.13,35				35,41				69.11.57,04	-0,57	Σ 1083.
	13.34.32,67	29,910	40,6	37,4	14,46				51.21.55,41	-20,10	α Lyrae R.
	13.34.31,51								51.21.54,25		α Lyrae.
	19.1.50,23				20,65				56.49.19,16	-18,43	β Lyrae R.
	19.1.49,01								56.49.17,94		β Lyrae.
30,26	74.34.25,55			39,6	3.32,73	1,46		16,30	112.24.48,80		Jupiter.
	52.28.36,56	29,990	46,4	44,7	1.16,82				90.17.1,66	-1,88	Σ 757.
	54.13.23,51				1.21,85				92.1.53,64	-2,54	ζ Orionis.
	45.48.15,38				1.0,72				83.36.24,38	-0,05	52 Orionis.
	41.26.23,48				52,14				79.14.23,90	+0,59	Σ 840.
	38.12.49,91				46,51				76.0.44,70	+1,58	Σ 848.
30,44	24.43.9,35			43,2	27,29				62.30.44,92	+2,38	Σ 1037.
	-60.22.41,62			41,8	1.44,21				-22.37.17,55	-18,85	δ Draco SP. R.
	-60.22.42,49								-22.37.18,42		δ Draconis SP.
	31.24.12,48				36,29				69.11.57,05	-0,52	Σ 1083. sp.
	39.33.33,33				49,09				77.21.30,70	-3,49	Σ 1116.
	63.59.32,66				2.1,30				101.48.42,24	-10,36	5 Argus.
31,26	49.33.18,73				1.9,66				87.21.36,67	-7,43	14 Canis Minoris
	49.25.58,30				1.9,36				87.14.15,94	-7,58	A.S.C. 985.
	39.28.1,01	29,998	42,0	40,5	49,07				77.15.58,36	-12,67	Regulus R.
	39.28.1,78								77.15.59,13		Regulus.
	-70.18.58,04				2.45,24				-32.34.35,00	-1,39	ζ Cephei SP. R.
	-70.18.57,89								-32.34.34,85		ζ Cephei SP.
30,95	31.34.6,90				36,63				69.21.51,81	-12,52	γ Leonis.
	42.5.7,18				53,82				79.53.9,28	-14,23	ρ Leonis.
	57.14.2,51	29,618	45,8	47,1	1.30,00	7,24		16.7,60	95.18.41,15		⊙.
	57.46.14,55				1.31,87	7,28			95.18.39,82		⊙.
	57.22.55,93	29,652	48,6	50,0	1.30,08	7,25		16.7,40	94.55.19,64		⊙.
	56.50.42,11				1.28,26	7,20			94.55.18,85		⊙.
30,27	74.29.53,98	29,500	42,8	39,8	3.28,70	1,47	11,655	15,84	112.20.13,65		Jupiter.
	56.27.18,42	29,540	45,0	44,7	1.27,59	7,17		16.7,10	94.31.54,22		⊙.
	56.59.30,30				1.29,39	7,21			94.31.53,66		⊙.
	56.36.2,80	29,600	44,3	44,2	1.28,35	7,18		16.6,80	94.8.25,45		⊙.
	56.3.50,66				1.26,58	7,13			94.8.25,19		⊙.
	41.26.24,60	29,856	43,0	41,2	52,29				79.14.25,17	+0,51	Σ 840.
30,27	38.12.50,23				46,64				76.0.45,15	+1,52	Σ 848.
	31.19.23,36				36,06				69.7.7,70	+3,00	15 Geminorum.
	31.17.40,56				36,02				69.5.24,86	+2,90	* R. 6 ^h .19 ^m .46 ^s .
	31.19.25,81				36,06				69.7.10,15	+2,81	* R. 6 ^h .21 ^m .2 ^s .
	39.33.32,62	29,900	42,0	39,8	49,14				77.21.30,04	-3,51	Σ 1116.
	46.36.31,11				1.2,90				84.24.42,29	-5,90	Piazzi VII. 170.
30,27	63.59.32,71				2.1,44				101.48.42,43	-10,80	5 Argus.
	49.33.19,06			38,9	1.9,87				87.21.37,21	-7,63	14 Canis Minoris
	49.25.58,50				1.9,57				87.14.16,35	-7,76	A.S.C. 985.
	24.16.19,40				26,89				62.3.54,57	-1,11	11 Cancri.
	1.58.2,65				2,05				39.45.12,98	+4,57	Σ 1200.
	39.28.2,74	29,950	39,6	37,3	49,32				77.16.0,34	-12,62	Regulus R.
30,27	39.28.1,53								77.15.59,13		Regulus.

Coincidence of Micrometer Wire with fixed Wire = 10', 127, 10', 134, 10', 137, 10', 141, 10', 147 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = -0'', 2. From March 4 = -0'', 5.

Adopted Zenith Point = 246°. 49'. 30'', 87.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire.	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.								
			A	B	C	D	E	F														
			" "	" "	" "	" "	" "	" "														
Mar. 10	λ Ursæ Maj. R. M.	58.15	3.31,2	29,2	27,0	27,9	27,8	28,0	9,470	+ 13,92			58.18.42,39	G.								
	λ Ursæ Majoris...	255.20	0.22,2	18,3	18,0	17,0	17,3	17,5					255.20.18,38	G.								
	Σ 1426	291.45	3.15,6	12,2	11,8	10,3	10,4	10,4					291.48.11,73	G.								
	ι Cephei SP. R. M.	129.10	3.26,9	24,0	23,4	24,0	22,7	23,8	12,774	- 55,02			129.12.29,06	G.								
	ι Cephei SP.....	184.25	1.37,0	33,9	31,3	34,1	32,5	33,3					184.26.33,65	G.								
	α Ursæ Maj. R. M.	77.10	2.20,8	18,9	17,9	18,8	16,3	18,0					77.12.26,01	G.								
α Ursæ Majoris...	236.25	1.39,6	34,6	33,3	33,8	33,9	35,1	9,773	+ 7,59	236.26.35,02			G.									
Mar. 12	(a) δ U. Min. SP. R. M.	108.0	1.27,3	25,8	23,7	25,1	26,4	25,1	12,474	- 48,76					108.0.36,79	G.						
	δ Ursæ Minoris SP.	205.35	3.28,1	24,8	23,0	24,7	24,1	25,0							205.38.24,90	G.						
	12 Lyncis M.....	239.25	1.24,7	22,0	19,0	21,0	21,7	22,6	9,129	+ 21,03					239.26.42,85	G.						
	Σ 953.....	289.50	3.55,0	53,4	51,8	52,9	51,8	51,2							289.53.52,62	G.						
	α Cephei SP. R. M.	132.40	1.21,2	19,8	16,4	19,8	17,8	18,9	15,210	- 1.45,82					132.39.33,15	G.						
	α Cephei SP.....	180.55	4.31,5	27,9	26,8	28,6	26,9	30,6							180.59.28,65	G.						
Mar. 14	⊙ S.L. M.....	301.45	4.43,0	43,0	39,2	39,8	40,1	39,0	5,604	+ 1.34,54							301.51.15,14	G.				
	⊙ N.L.....	301.15	4.7,4	7,2	4,4	5,1	3,0	2,7									301.19.4,90	G.				
Mar. 15	δ U. Min. SP. R. M.	107.55	4.32,8	31,8	28,8	30,9	30,3	31,1	7,038	+ 1.4,63									108.0.35,50	G.		
	δ Ursæ Minoris SP.	205.35	3.30,5	25,1	24,2	25,8	25,6	26,2											205.38.26,18	G.		
	12 Lyncis M.....	239.25	2.23,4	20,4	18,0	19,8	20,0	21,0	11,930	- 37,42									239.26.42,98	G.		
	Σ 953. sf.....	289.50	3.56,2	53,0	52,2	52,4	53,1	52,1											289.53.53,10	G.		
	Σ 1033.....	246.10	3.55,5	51,0	51,3	50,9	51,4	51,5	-1	+ 0,20	246.13.52,07	G.										
	Σ 1037..	271.50	2.43,0	40,9	39,3	40,4	39,9	39,0			+1	+ 0,08							271.32.40,45	G.		
Mar. 17	⊙ S.L. M.....	300.35	3.37,9	36,6	33,2	34,4	35,5	34,5	5,307	+ 1.40,74									300.40.16,02	C.		
	⊙ N.L.....	300.5	3.10,0	9,1	5,9	7,7	5,3	6,6											300.8.7,66	C.		
Mar. 18	(b) ⊙ S.L. M.....	300.15	2.29,0	27,2	23,8	24,0	24,8	23,4	12,556	- 50,48											300.16.34,85	G.
	⊙ N.L.....	299.40	4.31,7	31,0	27,0	28,4	27,0	28,0													299.44.28,78	G.
	α Ursæ Maj. R. M.	77.10	2.23,8	22,1	20,0	20,2	19,2	20,6	9,709	+ 8,91											77.12.30,04	G.
	α Ursæ Majoris...	236.25	1.36,7	31,9	30,0	31,4	29,9	33,0					236.26.32,25	G.								
	γ Cephei SP. R. M.	117.50	1.26,1	23,0	21,6	23,7	19,8	20,9	13,236	- 1.4,67			117.50.17,93	G.								
	γ Cephei SP.....	195.45	3.47,8	43,0	43,1	42,9	39,9	42,8					195.48.43,48	G.								
	γ Ursæ Maj. R. M.	69.5	4.28,2	25,3	23,6	24,6	21,1	24,9	6,150	+ 1.23,15			69.10.48,05	G.								
	γ Ursæ Majoris...	244.25	3.19,0	14,3	15,0	14,6	12,2	14,8					244.28.15,18	G.								
(c) Jupiter S.L.....	321.5	3.23,0	20,5	19,0	17,9	16,2	18,0	321.8.19,32	G.													
	Mar. 19	⊙ N.L. M.....	299.15	4.21,8	20,5	17,8	18,1	16,1	17,2	5,948			+ 1.27,37			299.20.46,22					G.	
⊙ S.L.		299.50	2.55,1	54,0	51,4	51,5	49,2	49,5	299.52.51,97							G.						
Mar. 21	(d) 12 Lyncis.....	239.25	1.47,6	44,1	43,3	43,9	41,9	43,1	10,210	- 1,54							239.26.44,10	G.				
	Σ 1033.....	246.10	3.56,8	51,6	53,4	51,4	48,6	52,4									246.13.52,62	G.				
	δ Geminorum R. M.	36.50	3.20,6	18,4	17,4	17,4	15,0	16,7									36.53.16,24	G.				
	δ Geminorum.....	276.45	0.47,1	43,9	43,6	43,9	41,9	42,9									276.45.43,93	G.				
Mar. 22	⊙ S.L. M.....	298.40	2.21,2	21,0	17,2	17,9	15,2	16,5	11,390	- 26,15											298.41.52,17	G.
	⊙ N.L.....	298.5	4.47,7	47,8	45,8	44,9	43,2	44,0													298.9.45,87	G.
	ι Orionis.....	305.0	1.60,9	59,0	58,0	57,5	56,3	55,4	5,405	+ 1.38,69	305.1.57,97	G.										
	α Orionis R. M....	21.55	3.19,8	19,6	15,0	16,2	14,5	15,0			21.59.55,57	G.										
	α Orionis.....	291.35	4.9,0	7,2	5,7	4,4	2,5	3,3	6,260	+ 1.20,86	291.39.5,62	G.										
	δ U. Min. SP. R. M.	107.55	4.18,1	16,2	15,3	14,6	12,4	13,8			108.0.36,19	G.										
	δ Ursæ Minoris SP.	205.35	3.29,8	27,7	24,0	25,1	23,0	26,1	12,099	- 40,94	205.38.26,17	G.										
	Σ 1033.....	246.10	3.56,1	55,0	52,8	51,5	49,6	51,6			246.13.53,02	G.										
	δ Geminorum R. M.	36.50	3.59,1	61,2	56,0	56,1	54,9	56,0	12,099	- 40,94	36.53.16,53	G.										
	δ Geminorum.....	276.45	0.47,1	46,0	43,4	43,7	43,1	44,0			276.45.44,60	G.										
	Procyon R. M. ...	20.10	2.29,9	30,2	27,1	27,4	25,7	27,5	2,527	+ 2.38,72	20.15.6,84	G.										
	Procyon.....	293.20	3.58,0	58,5	55,9	53,8	52,9	53,8			293.23.55,73	G.										
	Pollux R. M.....	42.55	4.40,6	44,0	37,7	37,3	37,2	39,1	5,609	+ 1.34,44	43.1.14,06	G.										
	Pollux.....	270.35	2.49,7	49,4	45,0	45,0	43,0	45,0			270.37.46,37	G.										
	(e) Jupiter S.L.....	321.0	3.62,9	60,4	60,7	57,3	57,2	58,6	321.3.59,77	G.												

Coincidence at the middle wire and Runs taken March 22. 1^h.

- (a) Very cloudy.
 (b) Misty clouds.
 (c) Too faint to be worth much.

- (d) A double star of nearly the same N.P.D. precedes about 1^m.
 (e) Extremely indistinct.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
30,39	8.30.48,48 8.30.47,51 44.58.40,86	29,950	39,6	37,3	8,98 59,83				46.18.57,4 46.18.47,7 82.46.48,97	-8,38 -13,98	λ Ursæ Maj. R. λ Ursæ Majoris. Σ 1426.
31,36	-62.22.58,19 -62.22.57,22				1.54,11				-24.37.44,02 -24.37.43,05	+2,09	ι Cephei SP. R. ι Cephei SP.
30,52	-10.22.55,14 -10.22.55,85				10,98				27.24.2,16 27.24.1,45	-10,19	α Ursæ Maj. R. α Ursæ Majoris.
30,85	-41.11.5,92 -41.11.5,97 -7.22.48,02	29,928	47,4	46,2	51,41 7,62				-3.24.49,05 -3.24.49,10 30.24.12,64	-22,28 +14,74	δ U. Min. SP. R. δ U. Minoris SP. 12 Lyncis.
30,90	43.4.21,75 -65.50.2,28 -65.50.2,22	29,868	44,0	42,2	54,93 2.11,14				80.52.24,96 -28.5.5,14 -28.5.5,08	-1,76 -8,29	Σ 953. α Cephei SP. R. α Cephei SP.
	55.1.44,27 54.29.34,03	30,200	47,6	47,8	1.24,36 1.22,71	7,04 6,99		16.5,80	92.34.4,07 92.34.3,83		⊙. ⊙.
31,84	-41.11.4,63 -41.11.4,69 -7.22.47,89	30,298	47,7	48,0	51,85 7,68				-3.24.48,20 -3.24.48,26 30.24.12,71	-22,58 +14,90	δ U. Min. SP. R. δ Ursæ Min. SP. 12 Lyncis.
	43.4.22,23 -0.35.38,80 24.43.9,58				55,40 0,62 27,30				80.52.25,91 37.11.28,86 62.30.45,16	-1,80 +10,91 +2,73	Σ 953. sf. Σ 1033. Σ 1037.
	53.50.45,15 53.18.36,79	30,064	49,0	51,0	1.19,88 1.18,34	6,93 6,88		16.5,00	91.23.1,38 91.23.1,53		⊙. ⊙.
	53.27.3,98 52.54.57,91	29,620	49,5	49,8	1.17,76 1.16,29	6,89 6,84		16.4,70	90.59.18,43 90.59.20,34		⊙. ⊙.
31,15	-10.22.59,17 -10.22.58,62	29,512	43,5	41,0	10,74				27.23.58,37 27.23.58,92	-8,11	α Ursæ Maj. R. α Ursæ Majoris.
30,71	-51.0.47,06 -51.0.47,39			40,7	1.12,35				-13.14.51,13 -13.14.51,46	+6,52	γ Cephei SP. R. γ Cephei SP.
31,62	-2.21.17,18 -2.21.15,69 74.18.48,45	29,430	40,0	39,1	2,41 3.26,01	1,51	11,790	17,25	35.25.48,69 35.25.50,18 112.9.3,98	-14,31	γ Ursæ Maj. R. γ Ursæ Majoris. Jupiter.
	52.31.15,35 53.3.21,10	29,356	44,7	45,1	1.15,26 1.16,73	6,80 6,85		16.4,40	90.35.36,49 90.35.34,86		⊙. ⊙.
	-7.22.46,77 -0.35.38,25	30,058	43,0	41,6	7,72 0,62				30.24.13,79 37.11.29,41	+15,14 +11,28	12 Lyncis. Σ 1033.
30,09	29.56.14,63 29.56.13,06	30,068	42,5	41,4	34,35				67.43.57,26 67.43.55,69	+0,65	δ Geminorum R. δ Geminorum.
	51.52.21,30 51.20.15,00	30,024	42,0	41,9	1.15,70 1.14,26	6,74 6,69		16.3,60	89.24.34,94 89.24.34,45		⊙. ⊙.
30,60	58.12.27,10 44.49.35,30 44.49.34,75	29,928	43,4	43,0 42,2	1.35,22 58,87				96.1.10,60 82.37.42,45 82.37.41,90	-3,79 -0,28	α Orionis. α Orionis R. α Orionis.
31,18	-41.11.5,32 -41.11.4,70 -0.35.37,85	29,922	42,6	41,4	51,91 0,62				-3.24.48,95 -3.24.48,33 37.11.29,81	-22,73 +11,33	δ U. Min. SP. R. δ Ursæ Min. SP. Σ 1033.
30,57	29.56.14,34 29.56.13,73	29,916	42,0	39,8	34,29				67.43.56,91 67.43.56,30	+0,67	δ Geminorum R. δ Geminorum.
31,29	46.34.24,03 46.34.24,86				1.2,85				84.22.35,16 84.22.35,99	-6,25	Procyon R. Procyon.
30,22	23.48.16,81 23.48.15,50 74.14.28,90				26,27				61.35.51,36 61.35.50,05 112.4.49,38	+1,26	Pollux R. Pollux. Jupiter.
		30,030	37,6	35,7	3.30,72	1,52	11,765	17,00			

Coincidence of Micrometer Wire with fixed Wire = 10',127, 10',134, 10',137, 10',141, 10',147 at the five wires. From March 14 = 10',126, 10',133, 10',136, 10',140, 10',146.

One Micrometer Revolution = 20'',859.

Correction for Runs = -0'',5. From α Ursæ Majoris March 18 = +1'',9.

Adopted Zenith Point = 246°. 49'. 30'',87.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. ' "	Interval of Obs. from Middle Wire.	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.
			A	B	C	D	E	F						
			" "	" "	" "	" "	" "	" "						
Mar. 22	α Cygni R. M. ... α Cygni	59.15 254.15	4.37,1 4.23,2	36,0 20,8	34,9 21,2	34,0 19,0	32,9 19,2	34,8 18,7	9,909	+4,74	+1	+0,15	59.19.39,97 254.19.20,77	G. G.
Mar. 23	δ Geminorum R. M. δ Geminorum (a) ι Ursæ Maj. R. M. ι Ursæ Majoris ...	36.50 276.45 63.15 250.20	3.41,4 0.47,1 0.33,9 2.54,7	43,9 46,8 35,9 53,3	38,0 43,3 30,2 51,4	37,8 43,4 30,4 49,3	37,9 41,1 29,4 48,0	37,9 44,0 30,2 50,8	11,173 8,209	-21,64 +40,20			36.53.18,08 276.45.44,33 63.16.11,90 250.22.51,43	G. G. G. G.
Mar. 25	(b) Jupiter N.L.	321.0	0.33,0	32,8	29,0	29,9	30,3	30,6					321.0.30,97	G.
Mar. 26	\odot S.L. M. \odot N.L. δ Geminorum R. M. δ Geminorum ... γ Ursæ Maj. R. M. γ Ursæ Majoris... δ Ursæ Maj. R. M. δ Ursæ Majoris ... η Virginis κ Draconis R. M.. κ Draconis α Cassiop.SP.R.M. α Cassiopeiæ SP... η S.L. M. η S.L. M. η S.L. M. η S.L. M. η S.L. M. θ Virginis	297.5 296.35 36.55 276.45 69.10 244.25 72.30 241.5 298.45 85.15 228.20 138.55 174.45 309.20 303.40	1.26,2 0.32,0 0.13,9 0.47,2 0.20,9 3.15,8 2.22,4 3.5,9 3.45,9 2.8,1 3.22,4 1.16,0 0.46,0 1.28,6 2.51,2	25,6 32,8 16,8 49,7 24,6 16,1 25,3 5,0 48,0 9,4 23,7 18,9 47,7 29,7 52,9	22,1 27,7 9,0 43,1 16,0 11,3 18,6 0,9 41,2 4,3 18,7 13,1 42,0 24,9 48,2	23,0 28,2 12,7 45,0 18,7 12,2 20,3 0,6 41,8 7,0 17,8 15,9 44,4 25,6 47,8	22,4 29,1 10,0 43,9 16,4 11,1 18,9 0,8 40,7 4,4 20,2 13,0 41,8 24,0 45,2	21,1 27,0 10,9 44,5 17,3 13,3 20,3 2,0 42,2 5,1 20,2 15,1 43,9 24,9 47,9	6,810 15,719 8,711 14,038 14,189 18,516 9,620 9,391 9,173 8,957 8,772	+1.9,39 -1.56,46 +29,72 -1.21,39 -1.24,54 -2.54,80 +10,56 +15,47 +20,08 +24,68 +28,66	-2 -1 +1 +2	+8,84 +4,42 -4,42 -8,84	297.7.32,87 296.35.29,50 36.53.15,77 276.45.45,62 69.10.48,72 244.28.13,50 72.30.59,73 241.8.2,72 298.48.43,53 85.15.41,98 228.23.20,37 138.53.20,62 174.45.44,35 309.21.45,77 309.21.46,26 309.21.46,45 309.21.46,63 309.21.46,19 303.42.49,05	G. G.<

Coincidence at the middle wire and Runs taken April 5. 22^h.

(a) Very cloudy.

(b) Limbs barely distinguishable.

(c) The σf is the larger.

(d) Not good.

(e) Not used for zenith point: the reflexion observation is discordant.

(f) One star is vertically above the other.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	"	"	"	"	° ' "	"	
30,37	7.29.50,90 7.29.49,90	30,054	37,8	37,7	7,91				45.17.7,09 45.17.6,09	-13,41	α Cygni R. α Cygni.
31,20	29.56.12,79 29.56.13,46	30,132	38,4	36,3	34,79				67.43.55,86 67.43.56,53	+0,69	δ Geminorum R. δ Geminorum.
31,66	3.33.18,97 3.33.20,56	30,136	37,0	35,6	3,76				41.20.31,01 41.20.32,60	+1,99	ι Ursæ Maj. R. ι Ursæ Majoris.
	74.11.0,10	29,480	41,3	39,7	3.24,36	1,53	8,484	17,23	112.1.48,44		Jupiter.
	50.18.2,00	29,490	45,8	47,0	1.9,57	6,58			87.50.10,77		\odot .
	49.45.58,63				1.8,28	6,53			87.50.11,16		\odot .
30,70	29.56.15,10 29.56.14,75	29,478	44,0	43,1	33,56			16.2,50	67.43.56,94 67.43.56,59	+0,75	δ Geminorum R. δ Geminorum.
31,11	-2.21.17,85 -2.21.17,37	29,520	41,4	40,1	2,42				35.25.48,01 35.25.48,49	-12,35	γ Ursæ Maj. R. γ Ursæ Majoris.
31,23	-5.41.28,86 -5.41.28,15				5,86				32.5.33,56 32.5.34,27	-13,76	δ Ursæ Maj. R. δ Ursæ Majoris.
	51.59.12,66				1.15,02				89.47.35,96	-18,91	η Virginis.
31,18	-18.26.11,11 -18.26.10,50			38,9	19,63				19.20.37,54 19.20.38,15	-13,79	κ Draconis R. κ Draconis.
32,48	-72.3.49,75 -72.3.46,52				2.59,97				-34.19.41,44 -34.19.38,21	+6,94	α Cassiop. SP. R. α Cassiopeiæ SP.
	62.32.14,90 62.32.15,39								99.11.34,47 99.11.34,96		\jmath .
	62.32.15,58 62.32.15,76				1.52,83	53.16,46		16.25,08	99.11.35,15 99.11.35,33		\jmath .
	62.32.15,32 56.53.18,18			38,2	1.30,19				99.11.34,89 94.41.56,65	-19,31	θ Virginis.
	49.31.9,15 48.59.6,18	29,648	51,4	53,0	1.7,21 1.5,96	6,50 6,45		16.2,00	87.3.16,14 87.3.15,97		\odot . \odot .
	48.35.42,42	29,872	49,7	51,0	1.5,82	6,41		16.1,70	86.39.51,81		\odot .
	48.44.28,19 29.56.16,33	29,744 29,770	50,0 52,4	52,3 51,2	1.5,70	6,42		16.1,40	86.16.34,35 67.43.57,94		\odot . δ Geminorum R.
29,96	29.56.14,50				33,33				67.43.56,11	+0,85	δ Geminorum.
	31.24.13,55				35,34				69.11.57,17	0,00	Σ 1083. <i>sp.</i>
30,06	19.58.45,11 19.58.43,48				21,05				57.46.14,44 57.46.12,81	+3,49	Castor R. Castor.
	39.33.34,63 46.36.32,71				47,80				77.21.30,71 84.24.42,16	-3,38 -6,10	Σ 1116. Piazzi VII. 170.
	63.59.38,46	29,784	51,4	50,0	1.1,17 1.58,45				101.48.45,19	-11,91	5 Argûs.
	49.26.1,00 24.13.59,10				1.7,73				87.14.17,01 62.1.33,51	-8,13 +0,12	A.S.C. 985. Σ 1177. <i>np.</i>
	24.16.20,41				26,18				62.3.54,87	-0,03	11 Cancri.
31,15	3.33.19,05 3.33.19,60	29,800	50,0	49,3	3,62				41.20.30,95 41.20.31,50	+2,90	ι Ursæ Maj. R. ι Ursæ Majoris.
(28,67)	-15.33.9,00 -65.50.3,44				16,19				22.13.43,09	+7,28	σ^2 Ursæ Majoris.
	-65.50.7,85				2.8,93				-28.5.4,09	-11,71	α Cephei SP. R.
30,55	-10.23.2,17 -10.23.2,82	29,818	48,7	47,7	10,70				-28.5.8,50 27.23.55,41		α Cephei SP. α Ursæ Maj. R.
	49.33.20,48 24.13.57,66	30,232	41,5	39,6	1.10,54 27,10				27.23.54,76	-5,07	α Ursæ Majoris.
	24.16.19,33 1.58.0,71				27,15 2,07				87.21.39,30 62.1.33,04	-7,99 +0,32	14 Canis Minoris. Σ 1177. <i>np.</i>
	-15.33.7,75 35.2.5,90	30,250	39,9	37,7	16,84 42,39				62.3.54,76 39.45.11,06	+0,20 +7,18	11 Cancri. Σ 1200. <i>n.</i>
									22.13.43,69 72.49.56,57	+8,01 -7,42	σ^2 Ursæ Majoris. Σ 1322.

Coincidence of Micrometer Wire with fixed Wire = 10',126, 10',133, 10',136, 10',140, 10',146 at the five wires. From March 28 = 10',124, 10',131, 10',134, 10',138, 10',144.

One Micrometer Revolution = 20",859.

Correction for Runs = + 1",9. From March 28 = + 1",1.

Adopted Zenith Point = 246°. 49'. 30",87.

Assumed Co-latitude = 37°. 47'. 8",28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Apr. 4	Σ 1333.	263. 0	0. 46,5	46,4	43,8	41,9	40,0	41,8					263. 0. 43,43	G.
	Σ 1338.	260. 10	0. 61,9	61,3	58,3	56,4	55,9	56,4					260. 10. 58,40	G.
	21 Ursæ Maj. sf. ...	244. 20	0. 58,8	58,2	54,9	53,4	52,4	54,2					244. 20. 55,35	G.
	Σ 1355.	292. 5	1. 16,8	17,1	13,3	12,8	10,2	12,8					292. 6. 13,88	G.
	Σ 1365.	296. 50	1. 54,1	53,8	50,6	50,0	46,3	48,9					296. 51. 50,68	G.
	(a) Regulus R. M. ...	27. 20	1. 32,7	33,7	27,2	27,8	27,1	29,4	10,059	+ 1,56			27. 21. 31,26	G.
	Regulus.	286. 15	2. 35,9	36,2	30,5	30,6	27,8	31,7					286. 17. 32,22	G.
	λ Ursæ Maj. R. M. ...	58. 15	2. 23,3	25,8	20,0	19,2	18,8	21,2	6,038	+ 1. 25,45			58. 18. 46,92	G.
	λ Ursæ Majoris. ...	255. 20	0. 19,0	19,9	15,0	14,3	12,5	14,3					255. 20. 15,85	G.
	(b) Jupiter S.L.	321. 50	1. 48,6	46,9	45,5	45,2	42,2	43,8					320. 51. 45,43	G.
	α Aquilæ R. M. ...	23. 0	2. 28,8	28,5	25,3	24,5	22,8	24,7	3,310	+ 2. 22,34			23. 4. 48,19	G.
	α Aquilæ.	290. 30	4. 15,3	14,0	12,8	10,2	9,8	10,6					290. 34. 12,27	G.
	γ Cephei R. M. ...	91. 20	1. 29,0	27,1	24,0	25,8	22,9	24,8	10,571	- 9,12			91. 21. 16,53	G.
	γ Cephei.	222. 15	2. 48,1	46,2	45,0	45,1	44,0	44,0			+ ½	+ 0,16	222. 17. 45,66	G.
	α Cassiopeiæ R. M. ...	70. 15	1. 20,1	18,3	16,0	16,2	15,1	16,8	8,479	+ 34,52			70. 16. 51,65	G.
	α Cassiopeiæ.	243. 20	2. 13,1	10,4	9,0	8,4	8,1	7,4					243. 22. 9,48	G.
Apr. 5	(c) ⊙ N.L. M.	292. 40	3. 23,4	23,9	19,9	19,9	19,0	19,0	8,969	+ 24,30			292. 43. 45,25	G.
	⊙ S.L.	293. 15	0. 45,0	46,0	41,0	42,8	41,7	40,3					293. 15. 42,83	G.
	(d) Polaris R. M.	103. 0	1. 12,0	11,8	8,8	10,5	7,9	7,0	1,572	+ 2. 58,59			103. 4. 8,31	G.
	Polaris.	210. 30	4. 56,3	55,5	54,8	53,1	53,7	52,4					210. 34. 54,48	G.
	Piazzi VII. 170. ...	293. 25	1. 5,2	8,8	2,7	2,8	1,5	1,5					293. 26. 3,78	G.
	Σ 1177.	271. 0	3. 30,5	33,0	26,8	27,3	26,2	27,1					271. 3. 28,62	G.
	11 Cancri M.	271. 0	3. 30,5	33,0	26,8	27,3	26,2	27,1	3,340	+ 2. 21,71			271. 5. 50,33	G.
	(e) Σ 1244.	256. 40	1. 20,2	21,8	16,5	17,5	15,9	16,8			-1	+ 0,14	256. 41. 18,31	G.
	A.S.C. 1044.	291. 50	1. 33,5	35,9	27,2	29,0	28,1	29,7					291. 51. 30,62	G.
	Σ 1322.	281. 50	1. 40,2	42,0	34,8	36,9	35,5	36,0					281. 51. 37,63	G.
	Σ 1333.	263. 0	0. 46,0	47,0	42,3	42,9	40,6	41,5			+3	+ 0,08	263. 0. 43,42	G.
	Σ 1338.	260. 10	0. 60,8	61,8	57,0	57,6	56,0	55,4					260. 10. 58,13	G.
	21 Ursæ Maj. sf. ...	244. 20	0. 57,3	56,4	53,0	53,0	52,0	53,0					244. 20. 54,15	G.
	Σ 1355.	292. 5	1. 17,2	19,0	13,1	14,1	11,1	13,1					292. 6. 14,65	G.
	Σ 1365.	296. 50	1. 55,0	57,2	50,8	51,2	49,1	49,9					296. 51. 52,27	G.
	Piazzi IX. 161. ...	295. 40	0. 41,0	40,3	37,2	38,1	35,9	36,6			+2	- 0,14	295. 40. 38,28	G.
	(f) Regulus R. M.	27. 20	2. 33,0	31,4	26,8	28,8	28,0	28,6	12,946	- 58,45	+2	- 0,14	27. 21. 30,93	G.
	Regulus.	286. 15	2. 34,0	31,4	28,3	29,4	27,4	29,6			-3	+ 0,30	286. 17. 30,40	G.
	λ Ursæ Maj. R. M. ...	58. 15	2. 34,0	33,0	30,0	29,9	31,0	32,0	6,524	+ 1. 15,31			58. 18. 47,06	G.
	λ Ursæ Majoris. ...	255. 20	0. 16,8	15,2	12,7	13,0	12,3	12,3					255. 20. 13,72	G.
	γ Ursæ Maj. R. M. ...	69. 10	0. 30,8	31,2	26,8	29,2	26,2	27,9	9,038	+ 22,87			69. 10. 51,57	G.
	γ Ursæ Majoris. ...	244. 25	3. 14,5	10,4	10,8	9,7	8,4	10,8					244. 28. 10,88	G.
	γ Cephei R. M. ...	91. 20	1. 42,0	40,0	37,7	38,6	37,3	38,2	11,180	- 21,82			91. 21. 17,21	G.
	γ Cephei.	222. 15	2. 49,0	47,1	43,7	45,5	43,9	45,3					222. 17. 45,85	G.
	α Cassiopeiæ R. M. ...	70. 15	2. 32,0	31,1	27,2	29,1	28,0	29,8	11,955	- 40,01			70. 16. 49,61	G.
	α Cassiopeiæ.	243. 20	2. 12,8	11,6	8,7	9,7	8,7	7,4					243. 22. 9,90	G.
Apr. 6	(g) ⊙ S.L. M.	292. 50	3. 18,7	20,0	13,8	16,8	13,4	14,0	10,928	- 16,56			292. 52. 59,67	G.
	⊙ N.L.	292. 20	1. 4,4	5,4	0,4	2,7	0,8	0,7					292. 21. 2,43	G.
	Castor R. M.	46. 50	1. 21,2	20,9	14,5	17,4	17,0	17,4	11,720	- 33,00	+1	- 0,09	46. 50. 45,03	G.
	Castor.	266. 45	3. 16,3	15,1	13,0	12,6	12,4	12,0			2	+ 0,38	266. 48. 14,06	G.
	(h) Procyon R. M. ...	20. 10	3. 12,4	13,1	8,6	11,3	9,0	8,7	4,660	1. 54,18			20. 15. 4,81	G.
	Procyon.	293. 20	3. 57,1	57,8	54,0	54,3	54,9	53,3					293. 23. 55,38	G.
	Σ 1244 M.	256. 40	1. 44,8	44,0	39,8	41,8	41,8	41,7	11,300	- 24,33			256. 41. 18,05	G.
	A.S.C. 1044.	291. 50	1. 33,5	32,0	27,8	30,0	30,2	29,8					291. 51. 30,60	G.
	Piazzi IX. 161. ...	295. 40	0. 41,8	40,1	36,0	37,9	37,3	37,7					295. 40. 38,48	G.
	γ Ursæ Maj. R. M. ...	69. 10	0. 45,2	44,9	41,2	43,0	43,2	41,3	9,771	+ 7,57			69. 10. 50,74	G.
	γ Ursæ Majoris. ...	244. 25	3. 13,7	11,0	9,0	9,0	9,2	10,0					244. 28. 10,43	G.
	δ Ursæ Maj. R. M. ...	72. 30	2. 16,8	17,0	13,4	14,7	14,7	14,4	13,680	- 1. 13,97			72. 31. 1,28	G.
Apr. 7	δ Ursæ Majoris. ...	241. 5	2. 63,8	59,4	57,8	57,4	59,1	58,8					241. 7. 59,50	G.
	⊙ N.L. M.	291. 55	3. 23,2	23,4	18,4	20,4	20,0	19,0	9,812	+ 6,72			291. 58. 27,57	G.
	⊙ S.L.	292. 30	0. 25,0	25,8	20,1	24,1	23,2	21,3					292. 30. 23,27	G.
	(i) Capella R. M.	60. 25	0. 36,7	36,0	30,0	33,1	33,0	33,0	6,792	+ 1. 9,71			60. 26. 43,36	G.
	Capella.	253. 10	2. 18,8	16,2	13,1	14,8	14,5	14,0			+1	+ 0,16	253. 12. 15,48	G.

(a) Too near the fixed wire for a good bisection. (b) No definite limb. (c) Extremely bad for observing.
 (d) Very unsteady. (e) The star came on the fixed wire pretty well bisected. The microscopes were read off for a micrometer observation to allow of taking the next star, which follows 15.
 (f) Hurried and unsatisfactory.
 (g) Very bad limbs. (h) The image appeared distorted: the mercury trough was not well placed. (i) Not good: too much wind.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
31,74	16. 11. 12,56	30,250	39,9	37,7	17,56				53. 58. 38,40	- 1,85	Σ 1333.
	13. 21. 27,53				14,37				51. 8. 50,18	- 1,15	Σ 1338.
	- 2. 28. 35,52				2,62				35. 18. 30,14	+ 3,17	21 Ursæ Maj. sf.
	45. 16. 43,01				1. 1,02				83. 4. 52,31	- 11,34	Σ 1355.
	50. 2. 19,81				1. 12,08				87. 50. 40,17	- 12,90	Σ 1365.
31,39	39. 27. 59,61	30,270	38,9	36,4	49,98				77. 15. 57,87	- 11,88	Regulus R.
	39. 28. 1,35								77. 15. 59,61		Regulus.
	8. 30. 43,95				9,10				46. 18. 1,33	- 4,09	λ Ursæ Maj. R.
30,23	8. 30. 44,98	30,300	39,2	35,5	3. 29,94	1,58	11,777	17,14	46. 18. 2,36		λ Ursæ Majoris.
	74. 2. 14,56								111. 52. 34,06		Jupiter.
	43. 44. 42,68				58,20				81. 32. 49,16	- 9,80	α Aquilæ R.
31,10	43. 44. 41,40	30,328	46,0	42,6	27,40				81. 32. 47,88	+ 1,45	α Aquilæ.
	- 24. 31. 45,66								13. 14. 55,22		γ Cephei R.
	- 24. 31. 45,21								13. 14. 55,67		γ Cephei.
30,57	- 3. 27. 20,78			44,1	3,62				34. 19. 43,88	+ 4,80	α Cassiopeiæ R.
	- 3. 27. 21,39								34. 19. 43,27		α Cassiopeiæ.
31,40	45. 54. 14,38	30,324	44,8	44,5	1. 1,63	6,12		15. 59,70	83. 58. 17,87		⊙.
	46. 26. 11,96				1. 2,79	6,18			83. 58. 17,15		⊙.
	- 36. 14. 37,44				43,81				1. 31. 47,03	+ 11,33	Polaris R.
	- 36. 14. 36,39								1. 31. 48,08		Polaris.
	46. 35. 32,91	30,250	44,1	44,1	1. 3,07				84. 24. 44,26	- 6,05	Piazzi VII. 170.
30,66	24. 13. 57,75				26,86				62. 1. 32,89	+ 0,37	Σ 1177.
	24. 16. 19,46				26,91				62. 3. 54,65	+ 0,23	11 Cancri.
	9. 51. 47,44		44,0	43,7	10,39				47. 39. 6,11	+ 3,19	Σ 1244.
	45. 1. 59,75				59,75				82. 50. 7,78	- 8,46	A.S.C. 1044.
	35. 2. 6,76	30,258	43,4	42,1	42,02				72. 49. 57,06	- 7,36	Σ 1322.
30,39	16. 11. 12,55				17,41				53. 58. 38,24	- 1,74	Σ 1333.
	13. 21. 27,26				14,24				51. 8. 49,78	- 1,05	Σ 1338.
	- 2. 28. 36,72				2,59				35. 18. 28,97	+ 3,30	21 Ursæ Maj. sf.
	45. 16. 43,78				1. 0,48				83. 4. 52,54	- 11,32	Σ 1355.
	50. 2. 21,40				1. 11,44				87. 50. 41,12	- 12,89	Σ 1365.
31,23	48. 51. 7,41				1. 8,52				86. 39. 24,21	- 13,14	Piazzi IX. 161.
	39. 27. 59,94			39,9	49,56				77. 15. 57,78	- 11,84	Regulus R.
	39. 27. 59,53								77. 15. 57,37		Regulus.
	8. 30. 43,81				9,02				46. 18. 1,11	- 3,93	λ Ursæ Maj. R.
	8. 30. 42,85								46. 18. 0,15		λ Ursæ Majoris.
31,53	- 2. 21. 20,70	30,246	39,8	37,4	2,49				35. 25. 45,09	- 9,85	γ Ursæ Maj. R.
	- 2. 21. 19,99								35. 25. 45,80		γ Ursæ Majoris.
	- 24. 31. 46,34	30,120	42,0	42,4	27,22				13. 14. 54,72	+ 1,19	γ Cephei R.
29,76	- 24. 31. 45,02								13. 14. 56,04		γ Cephei.
	- 3. 27. 18,74	30,100	44,5	46,5	3,57				34. 19. 45,97	+ 4,58	α Cassiopeiæ R.
	- 3. 27. 20,97								34. 19. 43,74		α Cassiopeiæ.
29,55	46. 3. 28,80	30,078	45,4	47,2	1. 1,12	6,14		15. 59,50	83. 35. 32,56		⊙.
	45. 31. 31,56				1. 0,00	6,08			83. 35. 33,26		⊙.
	19. 58. 45,84	29,974	48,4	47,7	21,35				57. 46. 15,47	+ 3,65	Castor R.
	19. 58. 43,19								57. 46. 12,82		Castor.
	46. 34. 26,06				1. 1,95				84. 22. 36,29	- 6,20	Procyon R.
30,10	46. 34. 24,51				10,26				84. 22. 34,74		Procyon.
	9. 51. 47,18	29,958	46,4	44,9	59,03				47. 39. 5,72	+ 3,28	Σ 1244.
	45. 1. 59,73				59,03				82. 50. 7,04	- 8,45	A.S.C. 1044.
	48. 51. 7,61		44,6	42,7	1. 7,76				86. 39. 23,65	- 13,13	Piazzi IX. 161.
	- 2. 21. 19,87	29,918	42,0	39,6	2,45				35. 25. 45,96	- 9,60	γ Ursæ Maj. R.
30,58	- 2. 21. 20,44								35. 25. 45,39		γ Ursæ Majoris.
	- 5. 41. 30,41				5,94				32. 5. 31,93	- 10,83	δ Ursæ Maj. R.
	- 5. 41. 31,37								32. 5. 30,97		δ Ursæ Majoris.
29,42	45. 8. 56,70	29,820	48,0	49,4	58,45	6,04		15. 59,20	83. 12. 56,59		⊙.
	45. 40. 52,40				59,54	6,10			83. 12. 54,92		⊙.
	6. 22. 47,51	29,822	50,7	50,0	6,50				44. 10. 2,29	+ 13,03	Capella R.
	6. 22. 44,61								44. 9. 59,39		Capella.

Coincidence of Micrometer Wire with fixed Wire = 10', 124, 10', 131, 10', 134, 10', 138, 10', 144 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = + 1'', 1.

Adopted Zenith Point = 246°. 49'. 30'', 87.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	" "	" "	" "	" "	" "	" "	r.	" "		" "	° ' "	
Apr. 7	β Tauri R. M.....	43. 0	3. 19,4	20,8	14,6	16,1	17,2	17,1	4,583	+ 1.55,79			43. 5. 13,44	G.
	β Tauri.....	270. 30	3. 48,8	46,3	43,1	43,1	44,8	44,7					270. 33. 45,27	G.
	α Orionis R. M....	21. 55	4. 22,9	21,8	17,6	18,3	19,7	18,8	8,450	+ 35,13			21. 59. 55,13	G.
	α Orionis	291. 35	4. 8,4	7,8	5,3	4,4	4,6	4,3					291. 39. 5,95	G.
	(a) Jupiter N.L.....	320. 45	3. 40,9	47,5	46,0	45,0	45,8	46,2					320. 48. 46,87	G.
	γ Cephei R. M....	91. 20	1. 53,8	52,3	50,0	51,8	49,9	50,0	11,837	- 35,52			91. 21. 15,85	G.
	γ Cephei	222. 15	2. 48,2	47,1	43,6	45,4	44,8	44,8			$+\frac{1}{2}$	+ 0,16	222. 17. 45,91	G.
Apr. 8	(b) \odot S.L. M.....	292. 5	2. 24,8	22,2	20,1	20,8	20,0	19,5	8,518	+ 33,72			292. 7. 55,04	G.
	\odot N.L.....	291. 35	0. 60,9	59,9	56,4	57,5	56,5	55,0					291. 35. 57,73	G.
	Σ 1244 M.....	256. 40	1. 38,9	37,2	34,9	34,7	36,8	35,6	11,014	- 18,36			256. 41. 18,06	G.
	A.S.C. 1044	291. 50	1. 33,8	32,3	26,7	30,1	30,4	29,2					291. 51. 30,47	G.
	Piazzi VIII. 131..	249. 35	1. 45,5	43,2	40,0	39,9	43,4	41,0					249. 36. 42,23	G.
	Σ 1263.....	256. 45	1. 14,3	12,9	10,0	10,4	12,3	10,0					256. 46. 11,70	G.
	Σ 1289.....	254. 50	1. 9,9	8,2	6,0	6,3	7,2	4,9					254. 51. 7,12	G.
	* R. 8 ^h . 45 ^m . 32 ^s . M.	254. 50	1. 9,9	8,2	6,0	6,3	7,2	4,9	25,697	- 5. 24,54	+ 1	+ 0,15	254. 45. 42,73	G.
	Σ 1355.....	292. 5	1. 17,8	17,2	13,0	14,6	14,8	13,8					292. 6. 15,25	G.
	Σ 1365.....	296. 50	1. 54,9	54,1	50,8	52,0	50,8	50,0					296. 51. 52,17	G.
	Piazzi IX. 161....	295. 40	0. 41,4	40,0	36,7	37,4	38,3	36,0					295. 40. 38,32	G.
	Σ 1379	289. 25	0. 17,5	16,5	12,8	14,9	14,6	12,6					289. 25. 14,82	G.
	(c) 57 Ursæ Majoris..	258. 45	4. 60,8	57,7	56,8	56,8	57,0	56,4					258. 49. 57,58	G.
	90 Leonis	281. 20	1. 47,6	44,4	43,4	43,8	43,8	43,1					281. 21. 44,42	G.
	Σ 1561.....	253. 0	3. 34,1	29,0	28,1	28,0	28,6	29,8					253. 3. 29,73	G.
	β Leonis R. M....	30. 0	3. 33,8	31,8	29,2	30,8	32,1	30,9	7,450	+ 55,99			30. 4. 27,56	G.
	β Leonis	283. 30	4. 36,5	37,0	33,3	32,5	32,8	32,9					283. 34. 34,33	G.
	γ Ursæ Maj. R. M.	69. 5	4. 17,1	19,1	13,8	16,0	14,2	16,0	5,550	+ 1. 35,62			69. 10. 51,80	G.
	γ Ursæ Majoris...	244. 25	3. 13,3	13,0	9,0	9,6	8,9	10,6					244. 28. 10,85	G.
	Polaris SP. R. M..	106. 5	3. 6,8	8,3	4,1	5,1	2,7	3,9	11,293	- 24,18			106. 7. 41,09	G.
	Polaris SP.....	207. 30	1. 28,5	27,8	22,7	23,6	23,2	24,7					207. 31. 25,13	G.
	Jupiter S.L.....	320. 45	3. 42,1	39,2	39,0	36,7	35,8	37,4					320. 48. 38,50	G.
Apr. 9	\odot N.L. M.....	291. 10	3. 27,0	27,7	22,6	24,0	22,3	22,4	9,578	+ 11,60			291. 13. 36,05	G.
	\odot S.L.....	291. 45	0. 33,2	33,2	27,7	31,2	28,9	28,4					291. 45. 30,45	G.
	Piazzi VIII. 131..	249. 35	1. 45,1	44,1	40,2	40,8	40,9	41,2					249. 36. 42,12	G.
	Σ 1263.....	256. 45	1. 12,8	12,8	9,1	8,8	9,0	7,9					256. 46. 10,12	G.
	ι Cancri.....	269. 40	1. 59,4	60,8	57,0	56,8	57,3	56,4					269. 41. 58,02	G.
	Σ 1288.....	269. 55	4. 15,3	16,0	12,4	12,0	11,6	12,0			- 2	+ 0,34	269. 59. 13,71	G.
	Σ 1289.....	254. 50	1. 8,7	9,2	6,6	5,4	5,1	4,0					254. 51. 6,53	G.
	* 8 ^h . 45 ^m . 32 ^s . M.	254. 50	1. 8,7	9,2	6,6	5,4	5,1	4,0	25,679	- 5. 24,24			254. 45. 42,29	G.
	Σ 1379	289. 25	0. 16,0	16,9	13,0	14,7	12,0	11,4					289. 25. 14,00	G.
	(d) Regulus R. M. ...	27. 20	2. 14,3	14,4	9,3	11,1	9,6	11,0	12,061	- 40,20			27. 21. 31,50	G.
	Regulus	286. 15	2. 35,0	34,9	30,0	30,9	29,9	31,0					286. 17. 32,05	G.
	λ Ursæ Maj. R. M.	58. 15	2. 25,2	25,9	20,7	22,3	21,5	23,7	6,038	+ 1. 25,45			58. 18. 48,75	G.
Apr. 10	λ Ursæ Majoris ...	255. 20	0. 16,0	16,0	12,8	12,8	11,4	12,3					255. 20. 13,55	G.
	Σ 1426.....	291. 45	3. 13,1	14,0	9,5	10,5	8,3	9,3					291. 48. 10,90	G.
	Jupiter S.L.....	320. 45	2. 13,8	12,2	9,6	10,9	8,9	10,0					320. 47. 10,98	G.
	α Aquilæ R. M....	23. 0	3. 31,0	31,0	27,6	27,8	26,8	29,0	6,317	- 1. 19,63			23. 4. 48,63	G.
Apr. 11	α Aquilæ.....	290. 30	4. 14,0	11,8	9,8	9,7	8,0	9,2					290. 34. 10,57	G.
	(e) \odot N.L.....	290. 25	4. 17,4	17,4	14,1	12,9	13,7	12,5					290. 29. 14,82	G.
	\odot S.L.....	291. 0	1. 9,1	9,7	5,8	8,7	7,8	4,8					291. 1. 7,68	G.
	Piazzi VIII. 131..	249. 35	1. 45,2	43,2	39,5	40,3	40,9	40,8					249. 36. 41,72	G.
	Σ 1263.....	256. 45	1. 12,9	13,3	9,7	9,9	8,6	8,6					256. 46. 10,55	G.
	ι Cancri.....	269. 40	1. 60,3	60,1	56,8	57,5	57,0	56,9					269. 41. 58,17	G.
	Σ 1289.....	254. 50	1. 9,8	7,8	6,2	7,0	4,7	4,4					254. 51. 6,68	G.
	* R. 8 ^h . 45 ^m . 32 ^s . M	254. 50	1. 9,8	7,8	6,2	7,0	4,7	4,4	25,680	- 5. 24,27			254. 45. 42,41	G.
	Jupiter N.L.....	320. 45	0. 57,8	56,8	53,2	54,9	53,2	53,8					320. 45. 54,98	G.
	γ Aquilæ R. M....	24. 50	0. 56,7	55,0	52,1	53,1	52,0	52,2	8,760	+ 28,66			24. 51. 22,21	G.
Apr. 11	γ Aquilæ.....	288. 45	2. 44,2	41,5	39,3	39,4	38,3	38,8					288. 47. 40,35	G.
	α Aquilæ R. M....	23. 0	3. 17,9	16,1	13,8	12,7	11,7	14,6	5,588	+ 1. 34,83			23. 4. 49,41	G.
	α Aquilæ.....	290. 30	4. 16,1	16,0	12,5	12,1	11,0	11,8					290. 34. 13,40	G.

(a) Very faint.

(b) Much motion and bad definition.

(c) No correction for Runs.

(d) Badly defined.

(e) Much clouded. Accidentally on the fixed wire.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
29,36	23.44.17,43	29,822	50,7	50,0	25,57				61.31.51,28	+7,56	β Tauri R.
	23.44.14,40								61.31.48,25		β Tauri.
30,54	44.49.35,74	29,828	49,2	48,0	57,98				82.37.42,00	-0,22	α Orionis R.
	44.49.35,08								82.37.41,34		α Orionis.
	73.59.16,00	30,004	42,4	38,8	3.25,78	1,60	8,467	17,39	111.50.5,85		Jupiter.
30,88	-24.31.44,98	30,080	49,8	47,1	26,92				13.14.56,38	+0,67	γ Cephei R.
	-24.31.44,96								13.14.56,40		γ Cephei.
	45.18.24,17	30,082	50,0	50,3	59,18	6,05		15.58,90	82.50.26,68		⊙.
	44.46.26,86				58,09	6,00			82.50.26,13		⊙.
	9.51.47,19	30,170	46,8	45,1	10,33				47.39.5,80	+3,43	Σ 1244.
	45.1.59,60				59,42				82.50.7,30	-8,43	A.S.C. 1044.
	2.47.11,36				2,89				40.34.22,53	+5,31	Piazzi VIII. 131.
	9.56.40,83				10,42				47.43.59,53	+2,89	Σ 1263.
	8.1.36,25				8,38				45.48.52,91	+2,83	Σ 1289.
	7.56.11,86				8,28				45.43.28,42	+2,78	* R. 8 ^h . 45 ^m . 32 ^s .
	45.16.44,38	30,178	45,0	43,0	1.0,21				83.4.52,87	-11,27	Σ 1355.
	50.2.21,30				1.11,12				87.50.40,70	-12,88	Σ 1365.
	48.51.7,45				1.8,21				86.39.23,94	-13,12	Piazzi IX. 161.
	42.35.43,95				54,83				80.23.47,06	-11,40	Σ 1379.
	12.0.26,71	30,182	42,0	40,2	12,77				49.47.47,76	-10,00	57 Ursæ Majoris.
	34.32.13,55				41,30				72.20.3,13	-14,93	90 Leonis.
	6.13.58,86				6,56				44.1.13,70	-9,54	Σ 1561.
30,94	36.45.3,31								74.32.56,40	-16,05	β Leonis R.
	36.45.3,46				44,81				74.32.56,55		β Leonis.
31,33	-2.21.20,93				2,47				35.25.44,88	-9,10	γ Ursæ Maj. R.
	-2.21.20,02								35.25.45,79		γ Ursæ Majoris.
33,11	-39.18.10,22	30,198	40,3	37,7	49,40				-1.31.51,34	+10,28	Polaris SP. R.
	-39.18.5,74								-1.31.46,86		Polaris SP.
	73.59.7,63	30,250	37,8	35,6	3.28,84	1,60	11,865	18,05	111.49.25,10		Jupiter.
	44.24.5,18	30,300	45,5	46,7	58,18	5,96		15.58,60	82.28.4,28		⊙.
	44.55.59,58				59,27	6,01			82.28.2,52		⊙.
	2.47.11,25	30,320	44,2	42,6	2,92				40.34.22,45	+5,39	Piazzi VIII. 131.
	9.56.39,25				10,52				47.43.58,05	+2,95	Σ 1263.
	22.52.27,15				25,32				60.40.0,75	-1,43	ι Cancri.
	23.9.42,84				25,67				60.57.16,79	-1,98	Σ 1288.
	8.1.35,66				8,47				45.48.52,41	+2,92	Σ 1289.
	7.56.11,42				8,37				45.43.28,07	+2,87	* R. 8 ^h . 45 ^m . 32 ^s .
	42.35.43,13	30,328	42,8	40,5	55,39				80.23.46,80	-11,37	Σ 1379.
31,77	39.27.59,37				49,61				77.15.57,26	-11,68	Regulus R.
	39.28.1,18								77.15.59,07		Regulus.
31,15	8.30.42,12				9,03				46.17.59,43	-3,32	λ Ursæ Maj. R.
	8.30.42,68								46.17.59,99		λ Ursæ Majoris.
	44.58.40,03				1.0,18				82.46.48,49	-13,78	Σ 1426.
29,60	73.57.40,11	30,200	41,7	36,6	3.27,74	1,61	11,857	17,97	111.47.56,55		Jupiter.
	43.44.42,24				57,88				81.32.48,40	-9,38	α Aquilæ R.
	43.44.39,70								81.32.45,86		α Aquilæ.
	43.39.43,95	30,162	46,2	46,5	56,47	5,87		15.58,00	81.43.40,83		⊙.
	44.11.36,81				57,52	5,93			81.43.38,68		⊙.
	2.47.10,85	30,150	43,3	41,3	2,91				40.34.22,04	+5,53	Piazzi VIII. 131.
	9.56.39,68				10,49				47.43.58,45	+3,08	Σ 1263.
	22.52.27,30				25,24				60.40.0,82	-1,31	ι Cancri.
	8.1.35,81				8,44				45.48.52,53	+3,08	Σ 1289.
	7.56.11,54				8,34				45.43.28,16	+3,04	* R. 8 ^h . 45 ^m . 32 ^s .
	73.56.24,11	30,100	38,8	37,2	3.26,51	1,62	8,380	18,29	111.47.15,55		Jupiter.
31,28	41.58.8,66				54,15				79.46.11,09	-10,05	γ Aquilæ R.
	41.58.9,48								79.46.11,91		γ Aquilæ.
31,41	43.44.41,46				57,62				81.32.47,36	-9,31	α Aquilæ R.
	43.44.42,53								81.32.48,43		α Aquilæ.

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Month and Day.	NAME OF STAR or PLANET.	Pointer. 0	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle.			Observer.
			A	B	C	D	E	F					0	"	"	
Apr. 15	Σ 1338. M.	260. 5	4. 23,8	22,0	20,0	20,1	20,5	20,3	5,520	+ 1.36,15			260. 10. 57,43			G.
	39 Lyncis	248. 45	4. 36,0	34,0	32,7	31,1	32,7	32,9					248. 49. 33,40			G.
	21 Ursæ Majoris ..	244. 20	0. 55,3	53,8	51,7	51,8	51,8	51,9					244. 20. 52,75			G.
	(a) Σ 1348.	291. 55	4. 59,0	60,0	55,4	57,7	55,0	55,2					291. 59. 57,05			G.
	Σ 1379.	289. 25	0. 18,1	17,0	13,0	14,1	11,4	12,8					289. 25. 14,40			G.
	β Leonis R. M.	30. 5	0. 22,9	21,0	17,9	19,3	18,8	19,0	12,663	- 52,86			30. 4. 26,97			G.
	(b) β Leonis	283. 30	4. 38,0	35,0	33,0	33,8	32,5	33,2					283. 34. 34,23			G.
	γ Ursæ Maj. R. M.	69. 10	0. 23,4	23,7	18,8	20,4	18,9	19,1	8,530	+ 33,86			69. 10. 54,09			G.
	γ Ursæ Majoris	244. 25	3. 11,8	10,0	7,5	7,4	6,3	8,9					244. 28. 8,77			G.
	δ Ursæ Maj. R. M.	72. 30	2. 33,0	32,8	29,1	29,0	28,8	28,8	14,189	- 1.24,69			72. 31. 5,66			G.
	δ Ursæ Majoris	241. 5	2. 62,1	58,9	57,0	56,4	55,8	57,4					241. 7. 58,03			G.
	α Cassiopeiæ R. M.	70. 15	2. 31,1	30,0	26,9	29,6	26,9	29,0	12,050	- 40,07			70. 16. 48,93			G.
	α Cassiopeiæ	243. 20	2. 16,6	13,4	11,1	12,0	11,7	10,4					243. 22. 12,62			G.
Apr. 16	⊙ S.L. M.	289. 10	2. 17,8	17,0	12,9	13,4	13,0	11,5	8,648	+ 30,89			289. 12. 45,11			G.
	⊙ N.L.	288. 40	0. 54,5	55,1	51,4	53,0	52,2	49,2					288. 40. 52,55			G.
	μ Geminorum	276. 25	1. 30,0	28,8	25,0	25,8	26,9	25,0					276. 26. 26,87			G.
	(c)) N.L. M.	274. 15	0. 16,0	15,7	13,2	13,0	13,6	10,0	9,594	+ 10,95	-2	+ 2,83	274. 15. 27,36			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,473	+ 13,62	-1	+ 1,42	274. 15. 28,62			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,371	+ 15,81			274. 15. 29,39			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,307	+ 17,24	+1	- 1,42	274. 15. 29,40			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,259	+ 18,36	+2	- 2,83	274. 15. 29,11			G.
	δ Geminorum	276. 45	0. 47,0	45,0	42,9	43,4	45,0	42,2					276. 45. 44,23			G.
	(d) Castor R. M.	46. 50	0. 47,0	45,1	42,0	45,4	43,4	43,5	9,995	+ 2,80			46. 50. 47,18			G.
	Castor	266. 45	3. 17,1	15,0	13,7	12,9	12,4	12,2			+1	+ 0,09	266. 48. 13,91			G.
	1 Cancri	269. 40	1. 61,4	60,0	57,4	57,5	57,8	57,3					269. 41. 58,53			G.
	2 Cancri	267. 50	1. 39,8	37,3	34,4	34,8	34,1	34,5					267. 51. 35,78			G.
	Σ 1311. sp. M.	275. 25	2. 22,7	21,6	18,0	18,6	18,3	19,9	15,776	- 1.58,01	-2	+ 0,27	275. 25. 22,06			G.
	Σ 1312.	246. 0	1. 8,8	6,8	4,8	4,0	2,8	4,1					246. 1. 5,20			G.
	Σ 1318.	251. 20	4. 12,1	10,4	8,5	6,9	7,4	8,8			-1	+ 0,17	251. 24. 9,10			G.
	Σ 1322.	281. 50	1. 39,9	39,2	35,1	35,1	35,4	35,7			+2	+ 0,19	281. 51. 36,89			G.
	Σ 1333.	263. 0	0. 45,4	44,1	42,0	41,9	39,8	41,6					263. 0. 42,45			G.
	39 Lyncis	248. 45	4. 37,7	35,0	32,7	30,9	32,3	33,7					248. 49. 33,63			G.
	Σ 1348.	291. 55	4. 59,8	59,9	56,1	55,0	53,3	56,1					291. 59. 56,60			G.
Apr. 19	⊙ N.L. M.	287. 35	2. 22,0	21,3	17,3	20,4	19,8	18,0	8,632	+ 31,23			287. 37. 50,98			G.
	⊙ S.L.	288. 5	4. 42,3	41,0	39,0	38,9	39,5	38,1					288. 9. 39,70			G.
	Castor R. M.	46. 45	4. 42,3	39,1	36,0	38,3	37,3	40,4	6,937	+ 1. 6,59			46. 50. 45,39			G.
	Castor	266. 45	3. 15,0	16,0	12,4	13,1	14,2	11,3					266. 48. 13,60			G.
	Procyon R. M.	20. 10	3. 14,8	14,8	8,9	12,9	11,0	12,0	4,757	+ 1.52,06			20. 15. 4,39			G.
	Procyon	293. 20	3. 58,6	59,8	56,0	56,1	57,9	53,9					293. 23. 56,97			G.
	Pollux R. M.	42. 55	4. 26,3	26,3	20,0	22,8	22,8	24,9	4,863	+ 1.49,85			43. 1. 13,62			G.
	Pollux	270. 35	2. 48,6	48,3	44,1	45,0	47,7	42,9					270. 37. 46,05			G.
	δ Cancri	280. 15	2. 58,9	60,3	56,5	57,9	58,8	56,0					280. 17. 58,00			G.
	2 Cancri	267. 50	1. 39,3	39,9	34,0	36,0	36,6	33,8					267. 51. 36,57			G.
	α2 Cancri	286. 30	3. 47,2	49,6	43,9	45,3	45,6	44,0					286. 33. 45,87			G.
	σ4 Cancri	266. 10	0. 9,9	11,0	5,7	7,4	6,4	4,4					266. 10. 7,47			G.
	Σ 1311. sp. M.	275. 25	1. 27,8	29,2	23,5	26,2	25,9	25,0	13,157	- 1. 3,38	-2	+ 0,27	275. 25. 23,12			G.
	Σ 1318.	251. 20	4. 10,8	11,7	7,9	6,7	9,0	7,1					251. 24. 8,78			G.
	Σ 1348.	291. 55	4. 60,5	62,0	57,9	58,3	57,4	57,0					291. 59. 58,75			G.
	) N.L. M.	286. 25	1. 4,4	6,8	0,3	2,9	2,0	0,3	9,764	+ 7,40	-2	+ 8,08	286. 26. 18,25			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,591	+ 11,16	-1	+ 4,04	286. 26. 17,97			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,402	+ 15,17			286. 26. 17,94			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,179	+ 19,89	+1	- 4,04	286. 26. 18,62			G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,019	+ 23,37	+2	- 8,08	286. 26. 18,06			G.
Apr. 19	Σ 1396.	287. 35	1. 60,1	61,3	55,7	58,4	56,9	56,0					287. 36. 58,03			G.
	π Leonis	290. 10	3. 43,1	43,9	38,6	39,3	39,4	38,2					290. 13. 40,35			G.
	Regulus R. M.	27. 15	4. 24,0	24,4	18,0	21,7	20,0	22,0	3,980	+ 2. 8,26			27. 21. 29,86			G.
	Regulus	286. 15	2. 35,4	35,7	29,6	32,0	30,9	30,7					286. 17. 32,33			G.
	η Ursæ Maj. R. M.	64. 40	2. 29,4	29,0	25,1	25,3	25,3	25,8	9,478	+ 13,58			64. 42. 40,18			G.
	η Ursæ Majoris	248. 55	1. 24,8	22,7	19,0	20,0	20,6	20,2					248. 56. 21,18			G.

Coincidence at the middle wire taken April 23. 1^h.
Runs taken April 20. 11^h.

(a) No correction for Runs.

(b) Small negative correction for Runs.

(c) Limb faint. The observer suspected that the limb was

not fully illumined. Correction applied for defect of illumination = - 0'',55.

(d) Too much wind.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	0 " "	Inch.	0	0	" "	" "	"	" "	0 " "	"	"
30,60	13. 21. 26,56	30,066	43,0	40,8	14,19				51. 8. 49,03	- 0,09	Σ 1338.
	2. 0. 2,53				2,09				39. 47. 12,90	+ 3,39	39 Lyncis.
	- 2. 28. 38,12	30,068	40,0	38,9	2,59				35. 18. 27,57	+ 4,50	21 Ursæ Majoris.
	45. 10. 26,18				1. 0,05				82. 58. 34,51	- 10,93	Σ 1348.
	42. 35. 43,53				54,88				80. 23. 46,69	- 11,16	Σ 1379.
	36. 45. 3,90				44,77				74. 32. 56,95	- 15,45	β Leonis. R.
	36. 45. 3,36								74. 32. 56,41		β Leonis.
	- 2. 21. 23,22				2,47				35. 25. 42,59	- 7,43	γ Ursæ Maj. R.
	- 2. 21. 22,10								35. 25. 43,71		γ Ursæ Majoris.
	- 5. 41. 34,79				5,98				32. 5. 27,51	- 8,49	δ Ursæ Maj. R.
	- 5. 41. 32,84								32. 5. 29,46		δ Ursæ Majoris.
31,43	- 3. 27. 18,06	30,112	44,0	45,2	3,58				34. 19. 46,64	+ 2,50	α Cassiopeia R.
	- 3. 27. 18,25								34. 19. 46,45		α Cassiopeia.
30,55	42. 23. 14,24	30,110	46,3	47,0	53,86	5,73		15. 56,80	79. 55. 13,85		⊙.
	41. 51. 21,68				52,87	5,67			79. 55. 13,96		⊙.
	29. 36. 56,00	30,120	43,0	41,7	33,66			15. 48,75	67. 24. 37,94	+ 3,58	μ Geminorum.
	27. 25. 56,49								65. 2. 47,22		⋄.
	27. 25. 57,75								65. 2. 48,48		⋄.
	27. 25. 58,52				30,74	26. 36,49			65. 2. 49,25		⋄.
	27. 25. 58,53								65. 2. 49,26		⋄.
	27. 25. 58,24								65. 2. 48,97		⋄.
	29. 56. 13,36				44,6	34,17			67. 43. 55,81	+ 0,97	δ Geminorum.
	19. 58. 43,69								57. 46. 13,55	+ 3,80	Castor R.
	19. 58. 43,04				21,58				57. 46. 12,90		Castor.
	22. 52. 27,66				25,20				60. 40. 1,14	- 1,05	i Cancri.
	21. 2. 4,91				22,97				58. 49. 36,16	- 0,92	i² Cancri.
	28. 35. 51,19				40,4	32,64			66. 23. 32,11	- 4,35	Σ 1311. sp.
	- 0. 48. 25,67				0,84				36. 58. 41,77	+ 5,19	Σ 1312.
	4. 34. 38,23				4,80				42. 21. 51,31	+ 3,31	Σ 1318.
	35. 2. 6,02				41,97				72. 49. 56,27	- 6,86	Σ 1322.
	16. 11. 11,58				17,39				53. 58. 37,25	- 0,78	Σ 1333.
	2. 0. 2,76				2,09				39. 47. 13,13	+ 3,48	39 Lyncis.
	45. 10. 25,73				1. 0,20				82. 58. 34,21	- 10,91	Σ 1348.
29,50	40. 48. 20,11	30,162	48,0	48,6	50,87	5,55		15. 56,00	78. 52. 9,71		⊙.
	41. 20. 8,83	30,104	48,2	52,1	51,83	5,61			78. 52. 7,35		⊙.
	19. 58. 45,48				21,25				57. 46. 15,01	+ 3,83	Castor R.
	19. 58. 42,73								57. 46. 12,26		Castor.
	46. 34. 26,48				1. 1,66				84. 22. 36,42	- 6,07	Procyon R.
	46. 34. 26,10								84. 22. 36,04		Procyon.
	23. 48. 17,25				25,78				61. 35. 51,31	+ 1,94	Pollux R.
	23. 48. 15,18								61. 35. 49,24		Pollux.
	33. 28. 27,13				38,74				71. 16. 14,15	- 4,57	δ Cancri.
	21. 2. 5,70				22,54				58. 49. 36,52	- 0,78	i² Cancri.
30,68	39. 44. 15,00	30,100	48,0	50,6	48,69				77. 32. 11,97	- 7,54	α² Cancri.
	19. 20. 36,60				20,57				57. 8. 5,45	- 0,61	σ⁴ Cancri.
	28. 35. 52,25				31,95				66. 23. 32,48	- 4,19	Σ 1311. sp.
	4. 34. 37,91				4,69				42. 21. 50,88	+ 3,54	Σ 1318.
	45. 10. 27,88				59,04				82. 58. 35,20	- 10,82	Σ 1348.
	39. 36. 47,38								77. 3. 11,40		⋄.
	39. 36. 47,10								77. 3. 11,12		⋄.
	39. 36. 47,07				48,58	37. 47,67			77. 3. 11,09		⋄.
	39. 36. 47,75								77. 3. 11,77		⋄.
	39. 36. 47,19								77. 3. 11,21		⋄.
29,84	40. 47. 27,16	30,100	48,0	50,6	50,75			16. 14,83	78. 35. 26,19	- 10,99	Σ 1396.
	43. 24. 9,48				55,62				81. 12. 13,38	- 11,95	π Leonis.
	39. 28. 1,01				48,43				77. 15. 57,72	- 11,20	Regulus R.
	39. 28. 1,46								77. 15. 58,17		Regulus.
	2. 6. 50,69				2,20				39. 54. 1,17	- 15,26	η Ursæ Maj. R.
30,68	2. 6. 50,31	30,114	44,9	42,8					39. 54. 0,79		η Ursæ Majoris.

Coincidence of Micrometer Wire with fixed Wire = 10',119, 10',126, 10',129, 10',133, 10',139 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = + 1'',1. From April 16 = - 0'',6.

Adopted Zenith Point = 246°. 49'. 30'',87.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	r.	" "		"	° ' "	
Apr. 19	α Cassiopeiæ R. M.	70.15	2.22,0	18,4	16,5	17,5	16,4	18,3	11,472	-28,01			70.16.50,12	G.
	α Cassiopeiæ.....	243.20	2.16,3	14,4	11,0	12,9	12,9	10,9					243.22.13,02	G.
	Polaris R. M.	103.0	2.33,8	30,5	28,5	29,7	27,9	27,8	5,595	+1.34,58			103.4.4,23	G.
	Polaris.....	210.30	4.58,7	58,6	56,3	56,4	58,0	55,8					210.34.57,20	G.
Apr. 20	(a) \odot S.L. M.....	287.45	4.24,1	26,0	21,5	22,1	23,9	20,4	10,997	-18,11			287.49.4,81	G.
	\odot N.L.	287.15	2.13,8	16,8	10,4	12,8	12,2	9,9					287.17.12,60	G.
	α Persei R. M.	63.50	3.23,7	22,2	16,7	20,0	18,4	21,0	6,984	+1.5,60			63.54.25,87	G.
	α Persei.....	249.40	4.38,0	37,7	33,4	33,0	36,3	33,0					249.44.35,15	G.
	ι^2 Cancri.....	267.50	1.38,4	41,9	32,2	37,8	35,9	35,8					267.51.36,97	G.
	σ^4 Cancri.....	266.10	0.8,0	11,8	4,0	8,0	5,2	4,4					266.10.6,90	G.
	Σ 1311. sp. M....	275.25	1.13,0	16,8	7,6	12,9	11,0	10,8	12,490	-49,46	-2	+0,27	275.25.22,81	G.
	(b) Σ 1318.	251.20	4.9,3	12,8	5,8	7,0	8,0	7,2			+1	+0,17	251.24.8,44	G.
	39 Lyncis.....	248.45	4.35,3	36,9	30,3	31,8	33,9	32,5					248.49.33,37	G.
	α Hydræ R. M....	6.35	4.16,4	16,3	12,8	13,8	14,6	14,8	9,610	+10,83			6.39.25,53	G.
	α Hydræ.....	306.55	4.36,0	35,6	31,0	33,8	32,6	33,4					306.59.33,65	G.
	β Cephei SP. R. M.	124.40	3.23,0	20,4	18,7	17,9	19,1	18,0	10,379	-5,21			124.43.14,24	G.
	β Cephei SP.....	188.55	0.49,3	48,1	44,0	46,2	46,7	44,2					188.55.46,40	G.
	ϵ Leonis R. M.	39.5	1.21,0	20,3	14,1	16,7	16,7	18,7	8,217	+39,88			39.6.57,76	G.
	ϵ Leonis.....	274.30	2.4,5	4,6	1,7	2,5	1,6	0,1					274.32.2,47	G.
	Σ 1396.	287.35	1.61,6	61,0	55,9	58,7	58,7	57,2					287.36.58,82	G.
	π Leonis.....	290.10	3.43,8	44,0	37,8	40,0	39,1	39,1					290.13.40,57	G.
	) N.L. M.....	292.35	0.9,9	9,7	4,9	6,9	6,7	6,0	9,740	+7,91	-2	+8,78	292.35.24,04	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,530	+12,44	-1	+4,39	292.35.24,18	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,301	+17,28			292.35.24,63	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,078	+22,00	+1	-4,39	292.35.24,96	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,871	+26,45	+2	-8,78	292.35.25,02	G.
	34 Sextantis.....	294.35	2.12,0	11,4	6,4	8,1	7,0	6,2					294.37.8,47	G.
	d Leonis M.....	294.35	2.12,0	11,4	6,4	8,1	7,0	6,2	20,058	-3.27,11			294.33.41,86	G.
	γ Ursæ Maj. R. M.	69.10	2.11,0	10,0	5,0	7,0	5,3	6,5	13,585	-1.12,09			69.10.55,33	G.
	γ Ursæ Majoris...	244.25	3.11,0	9,8	5,8	6,4	6,8	7,4					244.28.7,80	G.
	Polaris SP. R. M.	106.5	3.20,9	17,9	14,2	14,4	14,4	14,9	11,728	-33,36			106.7.42,69	G.
	Polaris SP.....	207.30	1.24,0	22,6	16,8	18,0	18,8	19,1					207.31.19,85	G.
	(c) Polaris R. M.	103.0	4.30,0	27,8	25,2	27,1	26,3	25,1	11,200	-22,34			103.4.4,49	G.
	Polaris.....	210.30	4.59,6	58,6	56,8	57,1	58,8	56,1					210.34.57,73	G.
Apr. 21	\odot N.L. M.....	286.55	2.20,9	20,4	17,1	18,4	19,1	16,0	11,678	-32,31			286.56.46,29	G.
	\odot S.L.	287.25	3.38,0	35,6	31,5	33,6	34,6	32,9					287.28.34,30	G.
	34 Sextantis.....	294.35	2.11,2	11,0	5,5	8,5	5,6	5,8					294.37.7,88	G.
	d Leonis M.....	294.35	2.11,2	11,0	5,5	8,5	5,6	5,8	20,061	-3.27,17			294.33.40,71	G.
	α Ursæ Maj. R. M.	77.10	2.16,5	15,1	10,3	13,3	10,6	12,0	8,993	+23,78	+1	-0,29	77.12.36,41	G.
	α Ursæ Majoris...	236.25	1.28,0	25,8	20,8	22,8	23,1	24,0			+1½	+0,65	236.26.24,70	G.
Apr. 22	(d) \odot S.L. M.....	287.5	4.22,0	21,1	17,3	19,1	17,8	18,1	13,010	-1.0,10			287.8.19,05	G.
	\odot N.L.	286.35	1.30,2	29,4	24,8	28,9	27,5	26,0					286.36.27,77	G.
	34 Sextantis.....	294.35	2.13,0	11,7	8,0	8,9	8,4	7,4					294.37.9,52	G.
	d Leonis M.....	294.35	2.13,0	11,7	8,0	8,9	8,4	7,4	20,056	-3.27,07			294.33.42,45	G.
	α Ursæ Maj. R. M.	77.10	2.19,2	18,8	13,3	17,0	14,9	15,3	9,097	+21,62	+1	-0,29	77.12.37,70	G.
	α Ursæ Majoris...	236.25	1.28,9	26,1	22,4	22,9	23,0	24,1			+1½	+0,65	236.26.25,18	G.
	ν Leonis M.....	298.55	2.14,0	12,8	8,0	9,9	8,7	7,4	6,144	+1.23,12			298.58.33,20	G.
	γ Cephei SP. R. M.	117.50	1.26,4	24,2	19,8	23,0	22,0	20,9	12,778	-55,26			117.50.27,42	G.
	γ Cephei SP....	195.45	3.38,0	35,3	31,0	33,4	31,4	34,0					195.48.33,78	G.
	β Virginis M....	296.20	1.64,8	63,0	59,7	61,0	59,7	58,7	9,499	+13,15			296.22.14,27	G.
	(e) γ Ursæ Maj. R. M.	69.10	0.59,5	59,0	54,1	58,2	54,8	54,9	10,201	-1,50			69.10.55,23	G.
	γ Ursæ Majoris...	244.25	3.11,7	7,9	6,1	5,0	6,1	5,7					244.28.7,02	G.
	) N.L. M.....	305.45	0.39,2	36,0	32,7	34,0	34,2	32,2	9,800	+6,66	-2	+8,86	305.45.50,22	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,630	+10,35	-1	+4,43	305.45.49,48	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,427	+14,64			305.45.49,34	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,196	+19,55	+1	-4,43	305.45.49,82	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,981	+24,16	+2	-8,86	305.45.50,00	G.
	q Virginis.....	307.35	0.48,2	47,0	44,0	43,1	44,2	42,4					307.35.44,80	G.

(a) Great motion.

(b) Very faint.

(c) Wind agitated the mercury.

(d) Badly defined: an unsatisfactory observation.

(e) Too near the fixed wire.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
31,57	- 3.27.19,25 - 3.27.17,85	30,130	52,7	51,1	3,54				34.19.45,49 34.19.46,89	+ 1,74	α Cassiopeiae R. α Cassiopeiae.
30,72	- 36.14.33,36 - 36.14.33,67			53,3	42,75				1.31.52,17 1.31.51,86	+ 6,83	Polaris R. Polaris.
	40.59.33,94 40.27.41,73	30,120	52,3	55,4	50,44 49,50			15.55,70	78.31.31,39 78.31.29,70		\odot . \odot .
30,51	2.55.5,00 2.55.4,28			56,6	2,95				40.42.16,23 40.42.15,51	+ 10,37	α Persei R. α Persei.
	21.2.6,10 19.20.36,03	30,086	52,3	54,3	22,36 20,41				58.49.36,74 57.8.4,72	- 0,72 - 0,54	ι^2 Cancr. σ^4 Cancr.
	28.35.51,94 4.34.37,57				31,69 4,66				66.23.31,91 42.21.50,51	- 4,14 + 3,60	Σ 1311. <i>sp.</i> Σ 1318.
	2.0.2,50 60.10.5,34				2,03				39.47.12,81 97.58.54,84	+ 3,83	39 Lyncis. α Hydræ R.
29,59	60.10.2,78			53,4	1.41,22				97.58.52,28	- 15,74	α Hydræ.
30,32	- 57.53.43,37 - 57.53.44,47				1.32,57				- 20.8.7,66 - 20.8.8,76	- 12,78	β Cephei SP. R. β Cephei SP.
30,12	27.42.33,11 27.42.31,60				30,59				65.30.11,98 65.30.10,47	- 6,03	ϵ Leonis R. ϵ Leonis.
	40.47.27,95 43.24.9,70			52,0	50,37 55,20				78.35.26,60 81.12.13,18	- 10,94 - 11,92	Σ 1396. π Leonis.
	45.45.53,17 45.45.53,31		51,4	50,9				16.19,28	83.7.38,78 83.7.38,92		δ . δ .
	45.45.53,76 45.45.54,09				1.0,06	42.42,01			83.7.39,37 83.7.39,70		δ . δ .
	45.45.54,15 47.47.37,60								83.7.39,76 85.35.50,35	- 15,11	34 Sextantis.
	47.44.10,49 - 2.21.24,46				1.4,47 1.4,33				85.32.23,10 35.25.41,40	- 15,80	d Leonis.
31,56	- 2.21.23,07			48,5	2,42				35.25.42,79	- 6,28	γ Ursæ Maj. R. γ Ursæ Majoris.
31,27	- 39.18.11,82 - 39.18.11,02		48,0	46,1	48,37				- 1.31.51,91 - 1.31.51,11	+ 6,68	Polaris SP. R. Polaris SP.
	- 36.14.33,62 - 36.14.33,14	30,142	54,5	51,1	42,96				1.31.51,70 1.31.52,18	+ 6,53	Polaris R. Polaris.
	40.7.15,42 40.39.3,43	30,134	52,8	53,7	49,10 50,03		5,47 5,53	15.55,50	78.11.2,83 78.11.0,71		\odot . \odot .
	47.47.37,01 47.44.9,84	30,050	49,0	46,6	1.4,96 1.4,83				85.35.50,25 85.32.22,95	- 15,09 - 15,76	34 Sextantis. d Leonis.
30,56	- 10.23.5,54 - 10.23.6,17				10,81				27.23.51,93 27.23.51,30	- 0,27	α Ursæ Maj. R. α Ursæ Majoris.
	40.18.48,18 39.46.56,90	29,946	51,8	54,0	49,10 48,18		5,49 5,43	15.55,20	77.50.44,87 77.50.43,13		\odot . \odot .
	47.47.38,65 47.44.11,58	29,900	53,6	53,0	1.3,80 1.3,67				85.35.50,73 85.32.23,53	- 15,06 - 15,74	34 Sextantis. d Leonis.
31,44	- 10.23.6,83 - 10.23.5,69				10,62				27.23.50,83 27.23.51,97	- 0,10	α Ursæ Maj. R. α Ursæ Majoris.
	52.9.2,53 - 51.0.56,55			51,0	1.14,73				89.57.25,34 - 13.15.0,03	- 17,97	ν Leonis.
30,60	- 51.0.57,09				1.11,76				- 13.15.0,57	- 2,65	γ Cephei SP. R. γ Cephei SP.
	49.32.43,40 - 2.21.24,36				1.8,12				87.20.59,80 35.25.41,52	- 17,74	β Virginis. γ Ursæ Maj. R.
31,13	- 2.21.23,85 58.56.19,35	29,888	52,0	49,7	2,40				35.25.42,03 96.10.16,62	- 5,84	γ Ursæ Majoris.
	58.56.18,61 58.56.18,47					1.36,50	51.6,88	16.19,37	96.10.15,88 96.10.15,74		δ . δ .
	58.56.18,95 58.56.19,13								96.10.16,22 96.10.16,40		δ . δ .
	60.46.13,93				1.43,82				98.35.6,03	- 20,36	q Virginis.

Coincidence of Micrometer Wire with fixed Wire = 10',119, 10',126, 10',129, 10',133, 10',139 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = - 0'',6.

Adopted Zenith Point = 246°. 49'. 30'',87.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			° ' "	° ' "	° ' "	° ' "	° ' "	° ' "						
Apr. 22	(a) α Cassiop. SP. R. M.	138.55	1.35,5	34,3	30,5	31,8	31,9	31,4	18,973	-3.45,54	+1	+0,22	138.53.28,13	G.
	α Cassiopeiæ SP...	174.45	0.40,5	36,3	34,0	35,7	35,1	35,0			+2	-0,88	174.45.35,20	G.
	ψ Virginis	307.40	1.47,7	45,0	42,0	41,6	42,5	41,5					307.41.43,35	G.
Apr. 23	⊙ N.L. M.	286.15	1.40,4	37,2	35,8	33,8	37,9	32,8	10,666	-11,21			286.16.25,07	G.
	⊙ S.L.	286.45	3.15,3	14,0	10,8	9,7	13,0	9,0					286.48.11,90	G.
	α Persei R. M. ...	63.50	3.23,5	21,5	16,7	18,8	18,8	19,0	6,940	+1.6,53			63.54.26,18	G.
	α Persei	249.40	4.38,5	35,1	32,1	32,0	36,2	32,9					249.44.34,38	G.
	ψ Virginis	307.40	1.48,8	46,3	42,6	43,0	42,6	43,0					307.41.44,35	G.
	(b) Polaris SP. R. M.	106.5	2.21,3	18,2	14,0	14,9	15,2	13,4	8,880	+26,05		+1,84	106.7.44,01	G.
	Polaris SP.	207.30	1.24,2	21,4	15,8	17,6	17,9	18,0				-1,56	207.31.17,56	G.
	(c) S.L. M.	312.25	4.61,8	59,1	55,9	57,0	56,4	55,0	9,730	+8,12	-2	+8,20	312.30.13,85	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,507	+12,92	-1	+4,10	312.30.14,55	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,322	+16,84			312.30.14,37	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,164	+20,21	+1	-4,10	312.30.13,64	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,046	+22,80	+2	-8,20	312.30.12,13	G.
	Spica R. M.	4.15	1.20,9	18,3	15,8	16,2	16,7	14,4	4,930	+1.48,46			4.18.5,48	G.
	Spica	309.20	0.59,2	56,9	54,0	54,4	54,8	52,9					309.20.55,35	G.
	α Virginis	316.20	0.49,6	48,0	42,8	44,9	45,9	44,0					316.20.45,85	G.
	η Bootis R. M.	33.45	1.42,7	42,4	35,8	38,4	37,4	38,0	4,701	+1.53,23			33.48.32,31	G.
	η Bootis	279.50	0.33,8	30,9	27,7	28,8	27,5	27,7					279.50.29,38	G.
Apr. 24	(d) Polaris R. M.	103.5	0.12,5	7,9	5,7	8,5	5,4	4,7	13,024	-1.0,39			103.4.7,06	G.
	Polaris	210.30	4.61,4	59,2	56,8	57,9	58,3	54,5					210.34.58,02	G.
Apr. 25	(e) ⊙ N.L. M.	285.35	1.44,4	45,7	41,0	43,0	42,7	39,9	9,445	+14,27			285.36.57,02	G.
	⊙ S.L.	286.5	3.43,1	44,2	36,7	40,8	40,0	38,2					286.8.40,43	G.
	Σ 1417.	279.5	2.37,5	33,9	30,2	30,5	31,7	30,1					279.7.32,27	G.
	Σ 1426.	291.45	3.19,3	17,0	12,6	12,8	14,0	11,9					291.48.14,53	G.
	Piazzi X. 58.	245.35	2.7,4	3,9	0,7	0,0	0,4	0,0					245.37.2,03	G.
	(f) Piazzi X. 67.	289.25	2.11,7	9,8	6,5	6,1	6,1	3,9					289.27.7,30	G.
	Σ 1439.	277.25	0.23,0	20,2	16,8	18,0	17,5	15,1					277.25.18,43	G.
	Σ 1460. np.	256.0	3.55,0	52,5	49,4	48,4	49,7	48,4					256.3.50,50	G.
	(g) * R. 10 ^h . 33 ^m . 5 ^s .	298.25	3.37,0	35,1	30,7	32,0	30,9	30,4					298.28.32,62	G.
	Σ 1464 M.	298.25	3.37,0	35,1	30,7	32,0	30,9	30,4	10,766	-13,30			298.28.19,32	G.
	(h) 40 Sextantis.	302.10	2.44,9	43,8	39,5	39,0	41,1	37,7					302.12.40,95	G.
	α Ursæ Maj. R. M.	77.10	2.13,4	12,0	6,9	9,1	8,4	7,8	8,709	+29,62			77.12.39,17	G.
	α Ursæ Majoris.	236.25	1.29,0	25,2	21,0	21,4	23,0	22,9					236.26.23,72	G.
	Piazzi X. 229.	294.30	2.20,1	18,1	14,0	14,5	14,3	13,0					294.32.15,62	G.
	Piazzi XI. 9.	278.0	2.28,5	25,7	21,8	21,8	23,8	21,0					278.2.23,72	G.
	Σ 1521.	270.35	1.18,4	15,8	11,5	11,9	11,8	10,6					270.36.13,32	G.
	Σ 1527.	283.50	3.38,1	35,9	32,8	32,7	34,2	32,2					283.53.34,25	G.
	Σ 1530. np.	305.0	3.13,0	11,7	8,2	7,4	9,8	6,9					305.3.9,43	G.
	57 Ursæ Majoris.	258.45	4.59,2	56,9	54,8	52,9	53,3	53,8					258.49.55,05	G.
	90 Leonis	281.20	1.48,9	46,4	42,2	43,9	43,3	42,1					281.21.44,43	G.
	Σ 1561.	253.0	3.31,2	28,1	24,0	24,6	25,9	26,0					253.3.26,57	G.
	β Leonis R. M.	30.0	3.39,1	38,3	32,8	34,1	34,3	34,2	7,630	+52,13			30.4.27,53	G.
	β Leonis	283.30	4.39,0	37,0	33,9	32,1	34,5	33,0					283.34.34,83	G.
	γ Ursæ Maj. R. M.	69.5	4.44,8	42,6	39,5	40,9	40,1	40,7	6,560	+1.14,45			69.10.55,78	G.
	γ Ursæ Majoris.	244.25	3.12,0	8,0	5,1	5,0	5,8	5,4					244.28.6,82	G.
	Polaris SP. R. M.	106.5	2.22,8	20,9	16,4	17,0	17,1	15,8	8,801	+27,71			106.7.45,99	G.
	Polaris SP.	207.30	1.24,4	21,0	16,0	17,0	17,3	16,8					207.31.18,72	G.
	α ² Libræ R. M.	359.15	0.22,1	19,0	17,5	16,7	16,8	15,2	8,532	+33,32			359.15.51,20	G.
	α ² Libræ	314.20	3.13,8	10,2	9,3	7,5	7,3	7,2					314.23.9,15	G.
	20 Libræ	323.35	2.58,8	54,5	53,9	52,9	51,8	51,0					323.37.53,77	G.
	(i) S.L. M.	322.0	4.43,1	39,3	38,0	37,5	37,9	38,1	9,678	+9,19	-2	+5,20	322.4.53,27	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,560	+11,81	-1	+2,60	322.4.53,29	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,439	+14,40			322.4.53,28	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,329	+16,77	+1	-2,60	322.4.53,05	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,210	+19,38	+2	-5,20	322.4.53,06	G.
	κ Libræ	318.5	4.29,8	24,1	23,9	22,8	21,6	22,8					318.9.24,08	G.

April 23. 11^h. Molyneux fast on Hardy, 30^s.0.

(a) An ill-defined blur. (b) Times of observation by Molyneux, 12^h.56^m.32^s and 12^h.57^m.0^s. (c) No correction for Runs. (d) Cloudy and uncertain. No correction for runs in the direct observation. (e) Great waving. (f) A bright star precedes this 22^s. (g) This star is brighter than Σ 1464 and precedes 25^s. (h) This is Σ 1476. Flamsteed's number is omitted by Struve. (i) Badly defined and waving.

[illegible]

Coincidence of Micrometer Wire with fixed Wire = $10^{\circ}, 119, 10^{\circ}, 126, 10^{\circ}, 129, 10^{\circ}, 133, 10^{\circ}, 139$ at the five wires.

One Micrometer Revolution = $20''$,859.

Correction for Runs = $-0''.6$.

Adopted Zenith Point = $246^{\circ}.49'.30''.87$. From April 24 = $246^{\circ}.49'.31''.97$.

Assumed Co-latitude = $37^{\circ}.47'.8'',28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.			Observer.
			A	B	C	D	E	F								
			° ' "	° ' "	° ' "	° ' "	° ' "	° ' "					° ' "	° ' "	° ' "	
Apr. 25	π Scorpii.....	324.35	2.24,0	19,0	18,0	18,1	16,3	17,4					324.37.18,75			G.
	Polaris R. M.....	103.5	0.13,4	11,0	8,0	10,7	7,9	6,7	13,248	-1.5,07			103.4.4,55			G.
	(a) Polaris.....	210.30	4.64,2	60,8	58,3	59,9	60,6	56,9					210.35.0,12			G.
Apr. 26	\odot S.L. M.....	285.50	0.20,9	19,7	14,7	16,4	17,1	13,3	13,024	-1.0,39			285.49.16,63			G.
	\odot N.L.....	285.15	2.31,4	30,0	26,1	27,8	27,6	25,6					285.17.28,03			G.
	Aldebaran R. M...	30.45	2.26,5	23,6	19,5	21,1	21,1	20,2	6,618	+1.13,24			30.48.35,19			G.
	Aldebaran.....	282.50	0.31,4	29,0	24,8	26,4	26,0	23,5					282.50.26,85			G.
	Σ 1417.....	279.5	2.36,9	34,2	29,6	30,3	29,1	30,0					279.7.31,78			G.
	Piazzi X. 58.....	245.35	2.7,8	4,0	0,4	0,7	0,0	0,5			-1	+0,20	245.37.2,50			G.
	Piazzi X. 67.....	289.25	2.11,2	9,0	5,0	6,2	3,8	4,0					289.27.6,62			G.
	Σ 1439.....	277.25	0.23,3	21,3	17,2	18,1	16,8	15,0					277.25.18,63			G.
	Σ 1457 M.....	292.30	1.18,4	16,9	12,7	14,0	11,4	12,2	18,272	-2.49,85			292.28.24,47			G.
	Σ 1460. np.....	256.0	3.56,0	52,9	51,0	48,9	50,1	49,0					256.3.51,45			G.
	* R. 10 ^h . 33 ^m . 5 ^s ..	298.25	3.36,0	34,0	30,2	29,8	29,1	29,7					298.28.31,60			G.
	Σ 1464 M.....	298.25	3.36,0	34,0	30,2	29,8	29,1	29,7	10,719	-12,31			298.28.19,29			G.
	40 Sextantis.....	302.10	2.44,0	41,8	38,4	38,2	38,0	37,1					302.12.39,68			G.
	Piazzi X. 229.....	294.30	2.19,1	17,5	13,3	14,3	12,7	11,4					294.32.14,80			G.
	Polaris SP. R. M...	106.5	2.21,3	18,9	14,6	15,2	14,1	13,5	8,760	+28,56			106.7.44,91			G.
	Polaris SP.....	207.30	1.24,0	21,8	16,9	17,6	16,8	16,8					207.31.19,03			G.
	(b) α^2 Libræ R. M...	359.10	3.17,8	15,2	13,7	12,6	11,5	11,4	2,421	+2.40,78			359.15.54,60			G.
	α^2 Libræ.....	314.20	3.14,2	10,9	9,9	8,3	7,9	7,1					314.23.9,83			G.
	κ Libræ.....	318.5	4.28,6	24,0	23,6	22,8	21,0	22,3					318.9.23,88			G.
	π Scorpii.....	324.35	2.25,0	21,0	19,7	19,7	17,1	18,1					324.37.20,18			G.
	(c) δ S.L. M.....	324.45	4.14,1	10,4	9,8	8,8	7,2	8,3	9,554	+11,78	-2	+2,96	324.49.24,66			G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,475	+13,58	-1	+1,48	324.49.24,98			G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,433	+14,53			324.49.24,45			G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,343	+16,48	+1	-1,48	324.49.24,92			G.
	δ S.L. M.....	...	...	...	...	...	...	...	9,250	+18,55	+2	-2,96	324.49.25,51			G.
	σ Scorpii.....	324.10	0.47,2	43,3	40,6	42,2	39,0	39,9					324.10.42,07			G.
	(d) Polaris R. M.....	103.0	4.41,2	37,8	35,8	37,0	34,9	35,4	11,716	-33,11			103.4.4,07			G.
	Polaris.....	210.30	4.65,6	62,4	62,3	61,5	61,0	59,8					210.35.2,28			G.
Apr. 27	(e) \odot N.L. M.....	284.55	3.33,2	32,9	28,4	29,0	29,3	27,7	10,874	-15,45			284.58.14,77			G.
	\odot S.L.....	285.25	4.62,0	62,0	59,6	58,3	58,4	56,4					285.29.59,63			G.
	Aldebaran R. M...	30.45	2.24,4	21,9	17,7	19,9	18,4	19,4	6,560	+1.14,53			30.48.34,90			G.
	Aldebaran.....	282.50	0.31,6	29,4	25,7	27,4	26,1	23,8					282.50.27,35			G.
	Σ 1417.....	279.5	2.36,7	35,5	29,9	31,0	30,4	30,0					279.7.32,35			G.
	Piazzi X. 58.....	245.35	2.7,3	4,9	0,5	0,8	0,0	0,0			-1	0,20	245.37.2,52			G.
	44 Leonis.....	289.25	1.38,2	36,2	31,7	33,8	31,3	31,8					289.26.34,05			G.
	Piazzi X. 67 M...	289.25	1.38,2	36,2	31,7	33,8	32,3	31,8	8,538	+33,27			289.27.7,32			G.
	Σ 1439.....	277.25	0.23,0	22,0	17,2	18,3	17,3	15,2					277.25.18,85			G.
	Σ 1457 M.....	292.30	0.27,6	27,9	22,0	24,7	22,1	22,8	15,880	-1.59,88			292.28.24,65			G.
	Σ 1460. np.....	256.0	3.55,2	53,0	50,8	48,7	50,0	49,0					256.3.51,25			G.
	* R. 10 ^h . 33 ^m . 5 ^s ..	298.25	3.37,0	35,6	31,3	31,7	30,3	30,4					298.28.32,85			G.
	Σ 1464 M.....	298.25	3.37,0	35,6	31,3	31,7	30,3	30,4	10,685	-11,51			298.28.21,34			G.
	40 Sextantis.....	302.10	2.44,0	42,9	38,7	39,4	39,1	38,0					302.12.40,45			G.
	(f) α Ursæ Maj. R. M.	77.10	2.38,4	38,9	32,8	34,7	34,0	33,8	9,959	+3,63			77.12.39,16			G.
	α Ursæ Majoris...	236.25	1.30,0	27,3	22,6	23,0	23,1	23,7					236.26.25,00			G.
	Piazzi X. 229.....	294.30	2.21,0	19,3	15,1	15,2	13,9	13,2					294.32.16,37			G.
	Piazzi XI. 9.....	278.0	2.27,4	24,8	21,8	21,1	21,5	20,2					278.2.22,88			G.
	Σ 1521.....	270.35	1.17,4	14,8	11,3	12,1	10,0	9,0					270.36.12,48			G.
	Σ 1527.....	283.50	3.38,9	37,2	33,5	33,1	32,5	33,2			-2	+0,16	283.53.35,03			G.
	Σ 1530. np.....	305.0	3.13,1	11,9	9,7	8,4	8,3	7,2					305.3.9,88			G.
	57 Ursæ Majoris...	258.45	4.59,1	55,3	54,5	52,4	52,7	53,1			-1	+0,13	258.49.54,83			G.
	Σ 1544.....	238.25	3.22,9	19,6	15,0	15,1	16,0	16,3					238.28.17,60			G.
	90 Leonis.....	281.20	1.48,6	45,0	42,7	43,3	41,7	41,4					281.21.43,85			G.
	Σ 1561.....	253.0	3.32,0	27,2	25,0	25,3	24,4	25,8					253.3.26,75			G.
	β Leonis R. M...	30.0	3.28,4	28,0	22,7	23,3	22,7	22,4	7,058	+1.4,14			30.4.28,84			G.
	β Leonis.....	283.30	4.38,9	36,5	34,4	32,3	32,8	32,4					283.34.34,72			G.
	γ Ursæ Maj. R. M.	69.5	4.48,9	47,5	44,0	44,2	44,0	43,7	6,678	+1.12,06			69.10.57,61			G.
	γ Ursæ Majoris...	244.25	3.11,5	8,6	5,8	6,1	4,5	5,0					244.28.7,03			G.

Runs taken April 26. 22^h.Coincidence at the middle wire taken May 1, 23^h.

- (a) No correction for Runs.
 (b) Not good.
 (c) Uneven and very unsteady.

- (d) Too much wind.
 (e) Very misty.
 (f) Cloudy and very unsatisfactory.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,34	77.47.46,78	30,066	48,2	44,7	4.27,56				115.39.22,62	-13,16	π Scorpii.
	-36.14.32,58	30,074	58,3	56,7					1.31.53,32	+5,13	Polaris R.
	-36.14.31,85				42,38				1.31.54,05		Polaris.
31,02	38.59.44,66	30,072	58,1	58,8	46,60	5,33		15.54,20	76.31.40,01		☉.
	38.27.56,06				45,73	5,27			76.31.39,00		☉.
	36.0.56,78	30,054	58,6	58,7	41,83				73.48.46,89	+4,78	Aldebaran R.
	36.0.54,88								73.48.44,99		Aldebaran.
	32.17.59,81	30,042	52,0	49,7	37,04				70.5.45,13	-8,74	Σ 1417.
	-1.12.29,47				1,24				36.34.37,57	+1,08	Piazzi X. 58.
	42.37.34,65				53,90				80.25.36,83	-12,63	Piazzi X. 67.
	30.35.46,66				34,65				68.23.29,59	-8,98	Σ 1439.
	45.38.52,50				59,88				83.27.0,66	-14,15	Σ 1457.
	9.14.19,48				9,54				47.1.37,30	-2,91	Σ 1460. np.
	51.38.59,63				1.13,94				89.27.21,85	-16,04	* R. 10 ^h . 33 ^m . 5 ^s .
	51.38.47,32				1.13,94				89.27.9,54	-16,06	Σ 1464.
	55.23.7,71				1.24,71				93.11.40,70	-17,39	40 Sextantis.
	47.42.42,83			47,7	1.4,61				85.30.55,72	-15,72	Piazzi X. 229.
	-39.18.12,94	30,028	47,7	44,7	48,41				-1.31.53,07	+4,98	Polaris SP. R.
32,21	-39.18.12,94							15.41,28	-1.31.53,07		Polaris SP.
	67.33.37,37	30,020	46,3	43,0	2.22,81				105.23.8,46	-17,97	α^2 Libræ R.
	67.33.37,86								105.23.8,95		α^2 Libræ.
31,13	71.19.51,91	30,010	45,7	43,2	2.53,85				109.9.54,04	-15,13	κ Libræ.
	77.47.48,21				4.27,92				115.39.24,41	-13,23	π Scorpii.
	77.59.52,69								114.39.41,52)).
	77.59.53,01								114.39.41,84)).
	77.59.52,48				4.32,34	56.10,51			114.39.41,31)).
	77.59.52,95								114.39.41,78)).
	77.59.53,54								114.39.42,37)).
	77.21.10,10				4.18,63				115.12.37,01	-11,75	σ Scorpii.
	-36.14.32,10	30,002	57,3	55,0	42,42				1.31.53,76	+4,83	Polaris R.
	-36.14.29,69								1.31.56,17		Polaris.
	38.8.42,80	29,996	55,3	55,8	45,36	5,23			76.12.25,21		☉.
	38.40.27,66				46,23	5,29			76.12.22,88		☉.
	36.0.57,07	29,980	56,8	57,7	41,81				73.48.47,16	+4,78	Aldebaran R.
	36.0.55,38								73.48.45,47		Aldebaran.
	32.18.0,38	29,974	53,8	51,8	36,80				70.5.45,46	-8,69	Σ 1417.
32,08	-1.12.29,45				1,23				36.34.37,60	+1,20	Piazzi X. 58.
	42.37.2,08				53,53				80.25.3,89	-12,52	44 Leonis.
	42.37.35,35				53,54				80.25.37,17	-12,58	Piazzi X. 67.
	30.35.46,88				34,42				68.23.29,58	-8,89	Σ 1439.
	45.38.52,68				59,49				83.27.0,45	-14,10	Σ 1457.
	9.14.19,28				9,47				47.1.37,03	-2,79	Σ 1460. np.
	51.39.0,88				1.13,46				89.27.22,62	-16,03	* R. 10 ^h . 33 ^m . 5 ^s .
	51.38.49,37				1.13,46				89.27.11,11	-16,05	Σ 1464.
	55.23.8,48			50,7	1.24,34				93.11.41,10	-17,40	40 Sextantis.
	-10.23.7,19				10,70				27.23.50,39	+0,75	α Ursæ Maj. R.
	-10.23.6,97								27.23.50,61		α Ursæ Majoris.
	47.42.44,40				1.4,07				85.30.56,75	-15,68	Piazzi X. 229.
	31.12.50,91				35,35				69.0.34,54	-11,27	Piazzi XI. 9.
	23.46.40,51				25,71				61.34.14,50	-9,18	Σ 1521.
	37.4.3,06				44,06				74.51.55,40	-16,04	Σ 1527.
31,78	58.13.37,91				1.33,94				96.2.20,13	-19,01	Σ 1530. np.
	12.0.22,86			49,8	12,43				49.47.43,57	-6,66	57 Ursæ Majoris.
	-8.21.14,37				8,59				29.25.45,32	-1,73	Σ 1544.
	34.32.11,88				40,22				72.20.0,38	-13,12	90 Leonis.
	6.13.54,78				6,39				44.1.9,45	-5,79	Σ 1561.
	36.45.3,13				43,64				74.32.55,05	-14,31	β Leonis R.
	36.45.2,75								74.32.54,67		β Leonis.
	-2.21.25,64				2,41				35.25.40,23		γ Ursæ Maj. R.
	-2.21.24,94								35.25.40,93	-4,79	γ Ursæ Majoris.
32,32											

Coincidence of Micrometer Wire with fixed Wire = 10', 119, 10', 126, 10', 129, 10', 133, 10', 139 at the five wires. From

April 27 = 10', 123, 10', 130, 10', 133, 10', 137, 10', 143.

One Micrometer Revolution = 20'', 859.

Correction for Runs = -0'', 6. From Σ 1417 April 26 = +1'', 1.

Adopted Zenith Point = 246°. 49'. 31'', 97.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Apr. 27	Polaris R. M.	103. 0	4. 38,8	34,0	33,9	33,1	31,8	31,4	11,463	- 27,75			103. 4. 5,82	G.
	Polaris.....	210. 30	4. 65,4	62,1	61,8	60,6	61,7	58,8					210. 35. 1,43	G.
Apr. 28	(a) ☉ S.L. M.	285. 5	4. 45,4	48,1	43,4	44,8	44,7	41,2	6,404	+ 1. 17,79			285. 11. 2,11	G.
	☉ N.L.	284. 35	4. 16,1	17,6	12,8	13,8	13,5	10,3					284. 39. 13,77	G.
	Polaris SP. R. M. .	106. 5	2. 29,0	27,1	22,5	24,0	23,7	22,1	8,999	+ 23,66			106. 7. 48,24	G.
	Polaris SP.	207. 30	1. 22,1	20,8	15,6	17,3	16,3	15,9					207. 31. 17,92	G.
	Spica R. M.	4. 15	2. 12,1	11,2	8,4	9,5	8,4	7,2	7,358	+ 57,88			4. 18. 7,21	G.
	Spica	309. 20	0. 58,2	57,0	53,7	55,4	54,3	52,8					309. 20. 55,18	G.
	α Cassiopeiae R. M.	70. 15	2. 26,0	21,4	18,2	21,4	18,1	21,0	11,649	- 31,63			70. 16. 49,25	G.
	α Cassiopeiae.....	243. 20	2. 18,9	15,8	13,8	13,9	14,1	12,4					243. 22. 14,68	G.
	Polaris R. M.	103. 0	4. 18,8	14,0	13,0	13,9	11,0	11,0	10,514	- 7,95			103. 4. 5,42	G.
	Polaris	210. 30	4. 64,0	61,9	60,0	59,4	60,8	57,7					210. 35. 0,33	G.
Apr. 29	(b) ☉ N.L. M.	284. 15	4. 58,7	60,4	56,3	57,0	56,6	54,6	8,600	+ 31,98			284. 20. 28,95	G.
	☉ S.L.	284. 50	2. 15,9	17,0	10,8	12,6	13,5	9,2					284. 52. 13,03	G.
	Aldebaran R. M. .	30. 45	2. 18,2	16,8	13,8	13,3	16,5	12,1	6,295	+ 1. 20,07			30. 48. 35,05	G.
	Aldebaran.....	282. 50	0. 32,0	26,8	24,5	24,8	24,2	23,6					282. 50. 25,97	G.
	Capella R. M.	60. 25	1. 9,2	7,7	2,9	4,9	5,0	3,9	8,379	+ 36,58			60. 26. 42,11	G.
	Capella	253. 10	2. 25,3	21,7	18,1	19,8	20,1	18,0					253. 12. 20,37	G.
	β Tauri R. M.	43. 0	3. 22,6	21,1	14,4	18,1	18,6	19,2	4,609	+ 1. 55,23			43. 5. 14,03	G.
	β Tauri.....	270. 30	3. 52,4	49,2	46,0	47,9	47,9	46,4					270. 33. 48,07	G.
	44 Leonis.....	289. 25	1. 36,0	36,5	29,6	34,6	31,5	31,5					289. 26. 33,18	G.
	Piazzi X. 67. M. .	289. 25	1. 36,0	36,5	29,6	34,6	31,5	31,5	8,503	+ 34,01			289. 27. 7,19	G.
	(c) Σ 1467.....	292. 25	3. 27,5	27,6	22,0	25,5	22,7	24,1					292. 28. 24,70	G.
	α Ursæ Maj. R. M.	77. 10	2. 14,6	12,3	9,3	10,0	10,0	9,5	8,741	+ 29,04			77. 12. 39,86	G.
	α Ursæ Majoris...	236. 25	1. 28,0	25,8	21,0	22,8	23,8	22,8					236. 26. 23,95	G.
	Piazzi XI. 9.	278. 0	2. 27,7	26,4	21,8	22,8	23,3	22,0					278. 2. 23,85	G.
	Σ 1521.....	270. 35	1. 17,7	16,0	11,1	13,2	11,9	10,7					270. 36. 13,37	G.
	Σ 1527.....	283. 50	3. 36,0	35,0	31,3	31,7	32,1	31,3					283. 53. 32,68	G.
	Polaris R. M.	103. 0	4. 32,4	28,0	27,0	28,1	24,2	26,1	11,232	- 22,93			103. 4. 4,44	G.
	Polaris.....	210. 30	4. 63,4	60,5	60,3	59,1	61,1	57,0					210. 34. 59,93	G.
Apr. 30	☉ S.L. M.	284. 30	4. 43,2	43,3	38,0	40,9	40,7	37,6	12,865	- 56,99			284. 33. 43,34	G.
	☉ N.L.	284. 0	1. 59,2	59,1	55,2	56,6	56,3	52,2					284. 1. 56,32	G.
	Aldebaran R. M. .	30. 45	2. 12,8	10,0	6,0	8,4	7,4	7,9	6,074	+ 1. 24,67			30. 48. 33,29	G.
	Aldebaran.....	282. 50	0. 31,3	30,5	25,0	28,4	27,4	23,4					282. 50. 27,63	G.
	Capella R. M.	60. 25	1. 21,9	20,0	14,7	18,0	16,2	17,5	8,970	+ 24,26			60. 26. 42,23	G.
	Capella	253. 10	2. 25,0	22,7	18,2	19,3	21,2	17,5					253. 12. 20,52	G.
	α Orionis R. M. .	21. 55	3. 34,0	33,1	26,0	30,3	31,1	28,9	6,116	+ 1. 23,80			21. 59. 54,15	G.
	α Orionis.....	291. 35	4. 13,0	12,1	8,4	7,0	9,8	5,0					291. 39. 8,07	G.
	Σ 1544.....	238. 25	3. 21,2	18,4	12,9	14,7	14,0	15,0			-1	+ 0,27	238. 28. 16,10	G.
	88 Leonis.....	283. 45	2. 18,9	17,3	12,7	13,9	13,2	12,4					283. 47. 14,60	G.
	A.S.C. 1359.....	270. 20	2. 56,3	53,8	50,7	50,7	50,1	49,7					270. 22. 51,72	G.
	Σ 1564 M.....	271. 10	2. 36,0	34,2	29,0	31,5	29,7	30,8	11,014	- 18,38			271. 12. 13,34	G.
	Σ 1565.....	279. 5	4. 46,0	42,5	38,4	38,7	38,5	39,6					279. 9. 40,33	G.
	Σ 1582 M.....	276. 10	2. 30,8	26,9	22,6	23,2	23,0	23,6	16,036	- 2. 3,13			276. 10. 21,74	G.
	Σ 1585.....	257. 5	2. 66,2	61,0	59,7	59,0	58,3	59,0					257. 8. 0,35	G.
	Σ 1606.....	258. 15	1. 8,0	5,5	1,0	3,5	0,8	2,1			-2	+ 0,52	258. 16. 3,94	G.
	Σ 1608. sp.....	244. 40	4. 24,1	17,2	15,8	16,1	14,3	17,1			+1	+ 0,21	244. 44. 17,39	G.
	Piazzi XII. 33....	302. 5	0. 39,8	36,8	33,8	34,1	32,5	32,4					302. 5. 34,87	G.
	Σ 1639.....	272. 30	4. 39,6	35,3	33,2	32,8	31,2	32,9					272. 34. 33,00	G.
	(d) β Ursæ Min. R. M.	89. 20	3. 26,6	25,0	20,5	21,0	19,6	19,6	7,905	+ 46,48			89. 24. 8,33	G.
	β Ursæ Minoris...	224. 10	4. 65,8	60,2	58,5	58,0	57,3	59,0					224. 14. 59,50	G.
May 1	(e)) N.L. M.	316. 30	3. 22,4	18,4	16,8	18,0	17,1	16,0	10,773	- 13,56	-2	- 6,04	316. 32. 58,32	G.
	) N.L. M. ....	...	...	...	...	...	...	...	10,901	- 16,08	-1	- 3,02	316. 32. 58,82	G.
	) N.L. M. ....	...	...	...	...	...	...	...	11,068	- 19,50			316. 32. 58,42	G.
	) N.L. M. ....	...	...	...	...	...	...	...	11,220	- 22,59	+1	+ 3,02	316. 32. 58,35	G.
	) N.L. M. ....	...	...	...	...	...	...	...	11,337	- 24,91	+2	+ 6,04	316. 32. 59,05	G.
	(f) α Androm. R. M. .	42. 45	4. 21,8	18,8	14,3	16,3	15,5	15,1	7,530	+ 54,30			42. 50. 11,02	G.
	α Andromedæ	270. 45	3. 55,0	52,3	49,5	50,4	49,4	48,1					270. 48. 50,55	G.

Runs taken May 1, 23^h.

(a) Bad limbs; very much fringed.

(b) Ill-defined.

(c) The pointer reading was set down 292°. 30'.

(d) Too much wind.

(e) Faint.

(f) Unsatisfactory.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,62	- 36 . 14 . 33,85 - 36 . 14 . 30,54	30,032	57,8	55,7	42,40				1 . 31 . 52,03 1 . 31 . 55,34	+ 4,53	Polaris R. Polaris.
	38 . 21 . 30,14 37 . 49 . 41,80	30,036	57,2	59,0	45,48 44,62	5,25 5,19		15 . 53,70	75 . 53 . 24,95 75 . 53 . 23,21		⊙. ⊙.
33,08	- 39 . 18 . 16,27 - 39 . 18 . 14,05	30,060	53,0	51,0	47,85				- 1 . 31 . 55,84 - 1 . 31 . 53,62	+ 4,43	Polaris SP. R. Polaris SP.
31,20	62 . 31 . 24,76 62 . 31 . 23,21				1 . 51,97				100 . 20 . 25,01 100 . 20 . 23,46	- 20,31	Spica R. Spica.
31,97	- 3 . 27 . 17,28 - 3 . 27 . 17,29	30,028	53,8	55,9	3,49				34 . 19 . 47,51 34 . 19 . 47,50	+ 0,31	α Cassiopeiae R. α Cassiopeiae.
32,88	- 36 . 14 . 33,45 - 36 . 14 . 31,64			57,0	42,28				1 . 31 . 52,55 1 . 31 . 54,36	+ 4,33	Polaris R. Polaris.
	37 . 30 . 56,98 38 . 2 . 41,06	30,008	55,8	60,5	43,95 44,79	5,15 5,21		15 . 53,50	75 . 34 . 37,56 75 . 34 . 35,42		⊙. ⊙.
30,51	36 . 0 . 56,92 36 . 0 . 54,00	29,986	58,5	62,0	41,46				73 . 48 . 46,66 73 . 48 . 43,74	+ 4,78	Aldebaran R. Aldebaran.
31,24	6 . 22 . 49,86 6 . 22 . 48,40	29,976	58,2	61,8	6,38				44 . 10 . 4,52 44 . 10 . 3,06	+ 10,39	Capella R. Capella.
31,05	23 . 44 . 17,94 23 . 44 . 16,10				25,09				61 . 31 . 51,31 61 . 31 . 49,47	+ 6,40	β Tauri R. β Tauri.
	42 . 37 . 1,21 42 . 37 . 35,22	29,944	56,0	55,6	53,06 53,08				80 . 25 . 2,55 80 . 25 . 36,58	- 12,42 - 12,49	44 Leonis. Piazzi X. 67.
	45 . 38 . 52,73 - 10 . 23 . 7,89	29,938	55,0	53,8	58,97 10,62				83 . 26 . 59,98 27 . 23 . 49,77	- 14,04 + 1,09	Σ 1467. α Ursæ Maj. R.
31,90	- 10 . 23 . 8,02 31 . 12 . 51,88				35,09				27 . 23 . 49,64 69 . 0 . 35,25	- 11,07	α Ursæ Majoris. Piazzi XI. 9.
	23 . 46 . 41,40 37 . 4 . 0,71				25,51 43,73				61 . 34 . 15,19 74 . 51 . 52,72	- 8,94 - 13,04	Σ 1521. Σ 1527.
32,18	- 36 . 14 . 32,47 - 36 . 14 . 32,04	29,836	57,8	59,5	41,81				1 . 31 . 54,00 1 . 31 . 54,43	+ 4,03	Polaris R. Polaris.
	37 . 44 . 11,37 37 . 12 . 24,35	29,824	60,6	63,4	43,77 42,94	5,18 5,11		15 . 53,20	75 . 16 . 5,04 75 . 16 . 3,66		⊙. ⊙.
30,46	36 . 0 . 58,68 36 . 0 . 55,66	29,814	62,7	65,0	40,98				73 . 48 . 47,94 73 . 48 . 44,92	+ 4,78	Aldebaran R. Aldebaran.
31,38	6 . 22 . 49,74 6 . 22 . 48,55	29,800	63,0	64,8	6,31				44 . 10 . 4,33 44 . 10 . 3,14	+ 10,26	Capella R. Capella.
31,56	44 . 49 . 37,82 44 . 49 . 37,00				56,00				82 . 37 . 42,10 82 . 37 . 41,28	+ 0,29	α Orionis R. α Orionis.
	- 8 . 21 . 15,87 36 . 57 . 42,63	29,838	55,2	52,0	8,51 43,57				29 . 25 . 43,90 74 . 45 . 34,48	- 1,17 - 13,47	Σ 1544. 88 Leonis.
	23 . 33 . 19,75 24 . 22 . 41,37				25,26 26,25				61 . 20 . 53,29 62 . 10 . 15,90	- 9,79 - 10,23	A.S.C. 1359. Σ 1564.
	32 . 20 . 8,36 29 . 20 . 49,77			50,8	36,66 32,65				70 . 7 . 53,30 67 . 8 . 30,70	- 12,47 - 12,37	Σ 1565. Σ 1582.
	10 . 18 . 28,38 11 . 26 . 31,97				10,56 11,76				48 . 5 . 47,22 49 . 13 . 52,01	- 7,43 - 8,55	Σ 1585. Σ 1606.
	- 2 . 5 . 14,58 55 . 16 . 2,90				2,12 1 . 23,58				35 . 41 . 51,58 93 . 4 . 34,76	- 5,45 - 19,30	Σ 1608. sp. Piazzi XII. 33.
	25 . 45 . 1,93 - 22 . 34 . 36,36	29,844	48,3	45,5	28,01 24,42				63 . 32 . 38,22 15 . 12 . 7,50	- 12,70 - 13,38	Σ 1639. β Ursæ Min. R.
33,92	- 22 . 34 . 32,47								15 . 12 . 11,39		β Ursæ Minoris.
	69 . 43 . 26,35 69 . 43 . 26,85	30,016	50,2	49,1					106 . 57 . 9,42 106 . 57 . 9,92)).)).
	69 . 43 . 26,45 69 . 43 . 26,38				2 . 37,35	50 . 51,80		14 . 49,24	106 . 57 . 9,52 106 . 57 . 9,45)).)).
30,78	69 . 43 . 27,08 23 . 59 . 20,95	30,028	55,0	55,6	25,75				106 . 57 . 10,15 61 . 46 . 54,98	+ 0,63	α Androm. R. α Andromedæ.
	23 . 59 . 18,58								61 . 46 . 52,61		

Coincidence of Micrometer Wire with fixed Wire = 10', 123, 10', 130, 10', 133, 10', 137, 10', 143 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs from Polaris April 27 = - 1'', 8.

Adopted Zenith Point = 246°. 49'. 31'', 97.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	r.	' "		' "	° ' "	
May 1	α Cassiopeiae R. M.	70.15	2.24,1	20,4	18,0	19,8	17,9	18,7	11,600	-30,60			70.16.49,08	G.
	α Cassiopeiae.	243.20	2.21,2	16,9	14,0	14,6	14,3	13,3					243.22.15,58	G.
May 2	\odot S.L. M.....	283.55	3.34,6	33,8	29,6	30,8	31,1	28,4	13,514	-1.10,53			283.57.20,64	G.
	\odot N.L.	283.25	0.41,0	39,0	33,4	35,8	36,0	33,0					283.25.36,33	G.
	Capella R. M.	60.25	1.27,6	27,0	20,4	23,9	23,0	22,4	9,250	+18,42			60.26.42,39	G.
	Capella	253.10	2.26,6	21,8	19,0	20,0	19,0	19,1					253.12.20,78	G.
	α Orionis R. M. ..	21.55	4.13,9	13,0	8,0	9,2	8,8	7,4	7,949	+45,56			21.59.55,36	G.
	α Orionis	291.35	4.10,3	9,0	5,9	5,2	5,8	3,9					291.39.6,43	G.
May 3	\odot N.L. M.	283.5	3.24,8	23,8	19,6	20,2	20,1	17,6	11,679	-32,25			283.7.48,57	G.
	\odot S.L.	283.35	4.34,0	34,8	30,6	32,1	31,2	29,4					283.39.31,75	G.
	(a) Aldebaran R. M. ...	30.45	2.20,8	19,1	14,0	18,0	15,3	16,4	6,470	+1.16,41			30.48.33,54	G.
	Aldebaran	282.50	0.31,0	30,0	25,4	26,9	26,3	23,0					282.50.27,07	G.
May 4	(b) δ Leonis R. M.	35.55	4.21,0	19,2	14,5	16,1	16,0	16,0	6,952	+1.6,36			36.0.23,24	G.
	δ Leonis	277.35	3.44,8	41,9	38,7	39,6	38,0	37,7					277.38.39,90	G.
	Σ 1530. <i>np</i>	305.0	3.16,8	13,5	11,5	11,4	10,7	9,9					305.3.12,10	G.
	Σ 1544.	238.25	3.21,0	17,3	13,5	14,8	13,7	14,4					238.28.15,58	G.
	88 Leonis	283.45	2.18,8	15,8	12,7	13,6	12,5	11,6					283.47.14,03	G.
	A.S.C. 1359.	270.20	2.56,0	53,0	50,2	50,9	49,0	48,1			-2	+0,33	270.22.51,36	G.
	Σ 1564 M.	271.10	2.50,0	47,2	44,7	46,0	43,8	44,4	11,731	-33,40	-1	+0,08	271.12.12,53	G.
	Σ 1565. <i>sf</i>	279.5	4.45,1	40,6	38,0	38,6	37,1	37,6					279.9.39,22	G.
	Σ 1566.	277.5	2.19,6	16,0	14,0	15,2	12,8	11,5			+2	+0,24	277.7.14,96	G.
	γ Ursae Maj. R. M.	69.5	3.40,8	38,9	34,2	36,0	34,8	34,5	3,224	+2.24,11			69.11.0,43	G.
	γ Ursae Majoris...	244.25	3.10,9	6,1	3,2	4,5	2,8	3,4					244.28.4,97	G.
	Σ 1582.	276.10	0.25,6	21,8	17,4	19,5	17,8	16,8					276.10.19,80	G.
	Σ 1585.	257.5	2.62,5	58,0	57,1	57,1	55,8	55,1			+2	+0,54	257.7.57,96	G.
	Σ 1606 M.	258.15	2.31,8	28,4	25,8	26,1	25,1	26,4	14,198	-1.24,79			258.16.2,33	G.
	Σ 1608. <i>sp</i>	244.40	4.21,7	15,0	14,8	14,0	13,6	14,1					244.44.15,28	G.
	Σ 1619.	305.20	3.43,1	39,9	38,5	36,9	37,1	36,8					305.23.38,50	G.
	Piazzi XII. 33.	302.5	0.38,7	35,7	32,8	34,0	33,2	31,6					302.5.34,30	G.
	Σ 1639.	272.30	4.37,4	33,9	33,0	30,8	30,9	31,6					272.34.32,67	G.
	(c) α Cassiop. SP. R. M.	138.50	4.37,4	35,1	31,4	33,0	32,1	32,9	13,395	-1.8,04			138.53.25,34	G.
	α Cassiopeiae SP. ...	174.45	0.37,7	33,0	29,8	32,3	29,9	31,2					174.45.32,28	G.
	Polaris SP. R. M. ...	106.5	2.21,4	19,1	14,6	16,2	13,0	14,3	8,579	+32,41			106.7.48,71	G.
	Polaris SP.	207.30	1.24,1	19,5	14,9	16,7	14,0	15,9					207.31.17,43	G.
	α Cassiopeiae R. M.	70.15	2.38,7	35,2	30,9	33,9	31,1	32,8	12,256	-44,21	+1	-0,22	70.16.49,19	G.
	α Cassiopeiae	243.20	2.22,0	16,4	14,8	16,6	14,5	13,8			+2	+0,88	243.22.17,10	G.
	Polaris R. M.	103.0	3.20,9	17,0	15,0	17,0	13,0	13,8	7,848	+47,75			103.4.3,67	G.
	Polaris	210.30	4.65,0	63,1	61,2	61,6	61,5	59,8					210.35.1,73	G.
May 9	\odot N.L. M.	281.25	2.25,5	21,9	19,4	20,9	19,0	18,9	12,269	-44,57			281.26.36,23	G.
	\odot S.L.	281.55	3.20,7	16,3	14,1	15,1	12,9	13,4					281.58.15,22	G.
	Polaris R. M.	103.0	4.24,2	20,1	18,8	20,1	15,5	16,9	11,081	-19,77			103.3.59,25	G.
	Polaris	210.30	5.8,0	5,2	4,7	4,3	2,9	1,9					210.35.4,20	G.
May 10	(d) Juno.	303.15	2.21,7	21,0	17,0	17,8	15,4	15,4					303.17.17,92	G.
	Polaris R. M.	103.0	4.21,7	17,2	15,0	17,0	13,5	14,5	10,830	-14,55			103.4.1,68	G.
	Polaris	210.30	5.8,1	4,9	3,4	4,0	3,8	1,9					210.35.4,05	G.
May 12	α^s Librae R. M.	359.10	4.27,9	24,9	22,8	23,1	22,1	21,2	5,938	+1.27,51			359.15.50,91	G.
	α^s Librae	314.20	3.17,6	14,8	11,0	11,4	11,0	9,8					314.23.12,40	G.
	β Ursae Min. R. M.	89.20	3.24,0	20,2	16,7	18,0	17,2	15,8	7,499	+54,95			89.24.13,40	G.
	β Ursae Minoris...	224.10	4.60,1	56,0	53,2	53,9	52,4	52,3					224.14.54,35	G.
	(d) Σ 1943	293.5	1.19,3	13,8	11,9	12,1	9,6	9,0					293.6.12,55	G.
	(d) Σ 1953.	292.55	3.55,5	50,1	49,0	48,3	46,7	46,4					292.58.49,10	G.
	δ Ophiuchi R. M. ...	11.15	4.25,0	21,4	20,8	19,2	19,4	18,2	5,576	+1.35,06			11.20.55,46	G.
	δ Ophiuchi	302.15	3.15,3	11,4	9,8	9,8	6,8	7,1					302.18.9,85	G.
May 13	(e) \odot N.L. M.	280.20	3.22,6	20,9	18,1	20,0	17,5	17,0	5,762	+1.31,16			280.24.50,49	G.
	\odot S.L.	280.55	1.30,5	27,5	24,0	27,9	25,5	25,0					280.56.26,72	G.

Runs and Coincidence at middle wire taken May 24, 23^h.

(a) Very unsteady.

(b) Good.

(c) A faint blur, very bad for bisection. This observa-

tion is not used in obtaining the adopted zenith point.

(d) Very faint.

(e) Badly defined.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,33	- 3.27.17,11 - 3.27.16,39	30,028	55,0	55,6	3,50				34.19.47,67 34.19.48,39	- 0,14	α Cassiopeiæ R. α Cassiopeiæ.
	37.7.48,67 36.36.4,36	30,024	58,6	58,9	43,50 42,67	5,10 5,04		15.52,70	74.39.42,65 74.39.42,97		\odot . \odot .
31,58	6.22.49,58 6.22.48,81	30,000	58,4	58,4	6,43				44.10.4,29 44.10.3,52	+ 9,99	Capella R. Capella.
30,90	44.49.36,61 44.49.34,46	29,994	58,2	58,2	57,10				82.37.41,99 82.37.39,84	+ 0,36	α Orionis R. α Orionis.
	36.18.16,60 36.49.59,78	29,860	56,7	58,0	42,06 42,88	5,00 5,07		15.52,50	74.21.54,44 74.21.53,37		\odot . \odot .
30,30	36.0.58,43 36.0.55,10	29,850	58,2	60,4	41,41				73.48.48,12 73.48.44,79	+ 4,80	Aldebaran R. Aldebaran.
31,57	30.49.8,73 30.49.7,93	29,838	54,7	53,3	34,46				68.36.51,47 68.36.50,67	- 10,53	δ Leonis R. δ Leonis.
	58.13.40,13 - 8.21.16,39				1.33,02 8,49				96.2.21,43 29.25.43,40	- 18,95 - 0,47	Σ 1530. <i>np</i> . Σ 1544.
	36.57.42,06 23.33.19,39				43,46 25,19				74.45.33,80 61.20.52,86	- 13,10 - 9,27	88 Leonis. A.S.C. 1359.
	24.22.40,56 32.20.7,25			52,5	26,22 36,63				62.10.15,06 70.7.52,16	- 9,72 - 12,06	Σ 1564. Σ 1565. <i>sf</i> .
	30.17.42,99 - 2.21.28,46				33,81				68.5.25,08 35.25.37,44	- 11,48 - 3,41	Σ 1566. γ Ursæ Maj. R.
32,70	- 2.21.27,00 29.20.47,83				2,38 32,53				35.25.38,90 67.8.28,64	- 11,87	γ Ursæ Majoris. Σ 1582.
	10.18.25,99 11.26.30,36	29,834	53,4	52,2	10,53 11,72				48.5.44,80 49.13.50,36	- 6,71 - 7,81	Σ 1585. Σ 1606.
	- 2.5.16,69 58.34.6,53				2,11 1.34,45				35.41.49,48 96.22.49,26	- 4,62 - 19,91	Σ 1608. <i>sp</i> . Σ 1619.
	55.16.2,33 25.45.0,70				1.23,33 27,93				93.4.33,94 63.32.36,91	- 19,20 - 12,10	Piazzi XII. 33. Σ 1639.
(28,81)	- 72.3.53,37 - 72.3.59,69				2.56,91				- 34.19.42,00 - 34.19.48,32	- 0,41	α Cassiop. SP. R. α Cassiopeiæ SP.
33,07	- 39.18.16,74 - 39.18.14,54			48,2	47,76				- 1.31.56,22 - 1.31.54,02	+ 2,98	Polaris SP. R. Polaris SP.
33,15	- 3.27.17,22 - 3.27.14,87	29,800	53,2	53,2	3,49				34.19.47,57 34.19.49,92	- 0,47	α Cassiopeiæ R. α Cassiopeiæ.
32,70	- 36.14.31,70 - 36.14.30,24	29,790	54,0	54,2	42,19				1.31.54,39 1.31.55,85	+ 2,83	Polaris R. Polaris.
	34.37.4,26 35.8.43,25	29,880	53,0	53,4	39,96 40,71	4,79 4,86		15.51,20	72.40.38,91 72.40.36,18		\odot . \odot .
31,73	- 36.14.27,28 - 36.14.27,77	30,102	50,4	51,1	42,90				1.31.58,10 1.31.57,61	+ 1,73	Polaris R. Polaris.
	56.27.45,95 - 36.14.29,71	30,008	49,3	47,0	1.28,58	2,98			94.16.19,83 1.31.56,36		Juno. Polaris R.
32,86	- 36.14.27,92	29,914	53,0	56,0	42,21				1.31.58,15	+ 1,43	Polaris.
31,66	67.33.41,06 67.33.40,43	29,916	51,3	47,8	2.20,92				105.23.10,26 105.23.9,63	- 18,28	α^2 Libræ R. α^2 Libræ.
33,87	- 22.34.41,43 - 22.34.37,62				24,36				15.12.2,49 15.12.6,30	- 9,56	β Ursæ Min. R. β Ursæ Minoris.
	46.16.40,58 46.9.17,13			47,0	1.1,29 1.1,03				84.4.50,15 83.57.26,44	- 16,00 - 15,88	Σ 1943. Σ 1953.
32,65	55.28.36,51 55.28.37,88			46,7	1.25,16				93.17.9,95 93.17.11,32	- 14,26	δ Ophiuchi R. δ Ophiuchi.
	33.35.18,52 34.6.54,75	29,982	55,0	56,9	38,26 39,03	4,66 4,73		15.50,30	71.38.50,70 71.38.47,03		\odot . \odot .

Coincidence of Micrometer Wire with fixed Wire = 10',123, 10',130, 10',133, 10',137, 10',143 at the five wires. From
May 13 = 10',122, 10',129, 10',132, 10',136, 10',142.

One Micrometer Revolution = 20'',859.

Correction for Runs = - 1'',8. From May 13 = - 0'',2.

Adopted Zenith Point = 246°.49'.31'',97.

Assumed Co-latitude = 37°.47'.8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
May 13	88 Leonis.....	283.45	2.17,3	18,0	11,0	14,3	12,9	10,8					283.47.14,03	G.
	A.S.C. 1359.....	270.20	2.54,8	55,0	48,7	52,1	51,6	49,0			-1	+0,08	270.22.51,91	G.
	Σ 1565.....	279.5	4.44,0	45,0	37,0	40,2	40,8	37,3			+1	+0,05	279.9.40,73	G.
	Σ 1582 M.....	276.5	4.43,2	43,9	36,3	39,6	40,8	37,6	8,130	+41,76			276.10.21,96	G.
	Σ 1585.....	257.5	2.61,8	61,1	56,5	58,4	57,7	55,4			+2	+0,54	257.7.58,99	G.
	Σ 1606.....	258.15	0.64,2	63,5	57,8	60,4	60,3	57,7					258.16.0,65	G.
	(a) Σ 1619.....	305.20	3.47,7	46,4	41,1	44,3	43,4	41,7					305.23.44,07	G.
	Piazzii XII. 33....	302.5	0.40,5	40,1	33,0	38,2	36,0	33,9					302.5.36,95	G.
	α ² Libræ R. M....	359.10	4.26,7	23,8	20,5	20,9	21,3	19,9	5,814	+1.30,08			359.15.52,23	G.
	α ² Libræ.....	314.20	3.16,8	14,0	9,3	11,1	10,3	9,1					314.23.11,73	G.
	β Ursæ Min. R. M....	89.20	3.29,9	25,4	22,0	23,4	22,7	23,0	7,790	+48,85			89.24.13,22	G.
	β Ursæ Minoris...	224.10	4.59,9	55,0	51,6	51,9	52,2	51,8					224.14.53,70	G.
	(b) Σ 1943.....	293.5	1.16,8	13,5	9,7	11,0	9,7	8,9					293.6.11,60	G.
	(b) Σ 1953.....	292.55	3.50,7	47,5	43,7	45,4	44,0	43,7					292.58.45,80	G.
	δ Ophiuchi R. M....	11.15	4.28,1	25,4	22,7	22,8	22,4	21,1	5,751	+1.31,39			11.20.55,11	G.
	δ Ophiuchi.....	302.15	3.14,0	11,0	8,6	8,9	7,0	5,2					302.18.9,08	G.
May 14	⊙ S.L. M.....	280.40	1.21,5	20,9	16,0	18,9	17,6	15,1	8,724	+29,37			280.41.47,69	G.
	⊙ N.L.....	280.10	0.11,0	10,2	6,0	9,1	7,2	3,8					280.10.7,88	G.
	(c) Σ 1608.....	244.40	4.11,9	9,9	4,3	5,8	7,0	4,9					244.44.7,27	G.
	* R. 12 ^h . 13 ^m . 29 ^s ...	273.5	4.39,0	40,0	33,5	35,5	34,8	32,9					273.9.35,92	G.
	Σ 1639.....	272.30	4.36,0	36,6	29,8	31,0	33,2	29,9					272.34.32,72	G.
	(d) Polaris SP. R. M....	106.5	2.24,6	21,0	16,4	19,0	18,8	15,9	8,540	+33,21		+0,16	106.7.52,64	G.
	Polaris SP.....	207.30	1.18,3	17,8	10,5	12,9	14,0	11,1				-0,25	207.31.13,85	G.
	η Ursæ Maj. R. M....	64.40	1.41,9	39,7	34,3	37,6	36,0	35,4	6,720	+1.11,17			64.42.48,64	G.
	η Ursæ Majoris...	248.55	1.20,2	17,9	12,8	15,4	15,9	13,1					248.56.15,88	G.
	η Bootis R. M....	33.45	1.39,9	38,6	30,8	34,7	34,7	33,1	4,289	+2.1,88			33.48.37,16	G.
	η Bootis.....	279.50	0.31,8	30,1	24,0	27,7	26,2	25,0					279.50.27,47	G.
May 16	(e) ⊙ S.L. M.....	280.10	2.26,0	24,3	20,9	22,8	20,9	19,5	7,319	+58,68			280.13.21,06	G.
	⊙ N.L.....	279.40	1.45,0	42,1	39,2	42,2	40,4	38,8					279.41.41,27	G.
	(f) N.L. M.....	284.55	1.65,4	62,3	58,4	61,1	59,1	58,0	9,760	+7,55	-2	+7,66	284.57.15,91	G.
	N.L. M.....	...	...	...	...	...	...	...	9,530	+12,50	-1	+3,83	284.57.17,03	G.
	N.L. M.....	...	...	...	...	...	...	...	9,374	+15,81			284.57.16,51	G.
	N.L. M.....	...	...	...	...	...	...	...	9,137	+20,84	+1	-3,83	284.57.17,71	G.
	N.L. M.....	...	...	...	...	...	...	...	8,958	+24,70	+2	-7,66	284.57.17,74	G.
	14 Leonis.....	288.25	0.17,0	13,4	9,4	13,7	11,8	8,2					288.25.12,25	G.
	Regulus R. M....	27.20	0.14,3	11,8	6,4	10,0	8,9	7,9	6,287	+1.20,20			27.21.30,08	G.
	Regulus.....	286.15	2.38,9	36,0	30,9	34,2	32,0	31,4					286.17.33,87	G.
	α Ursæ Maj. R. M....	77.10	2.29,2	27,1	22,6	26,0	24,8	23,5	9,270	+17,98			77.12.43,50	G.
	α Ursæ Majoris...	236.25	1.26,9	23,0	17,6	20,8	20,8	20,4					236.26.21,57	G.
	η Draconis R. M....	76.25	2.25,2	21,0	18,3	19,9	18,3	16,8	6,159	+1.22,87			76.28.42,77	G.
May 17	(g) η Draconis.....	237.10	0.31,3	26,9	21,5	25,2	22,3	25,0					237.10.25,37	G.
	Juno.....	302.50	3.47,6	43,4	42,3	40,0	39,0	39,4					302.53.41,92	G.
	N.L. M.....	290.45	2.35,6	33,0	28,7	30,9	28,8	28,1	9,791	+6,91	-2	+8,42	290.47.46,15	G.
	N.L. M.....	...	...	...	...	...	...	...	9,603	+10,98	-1	+4,21	290.47.46,01	G.
	N.L. M.....	...	...	...	...	...	...	...	9,387	+15,53			290.47.46,35	G.
	N.L. M.....	...	...	...	...	...	...	...	9,170	+20,15	+1	-4,21	290.47.46,76	G.
	N.L. M.....	...	...	...	...	...	...	...	8,978	+24,28	+2	-8,42	290.47.46,68	G.
	ρ Leonis.....	288.50	4.44,0	41,6	37,5	39,7	36,9	37,3					288.54.39,47	G.
	α Ursæ Maj. R. M....	77.10	2.23,9	21,1	17,9	20,1	17,9	16,8	8,995	+23,73			77.12.43,33	G.
	α Ursæ Majoris...	236.25	1.28,7	24,4	20,8	22,7	21,4	22,2					236.26.23,35	G.
	δ Leonis R. M....	36.0	0.39,8	38,9	32,7	37,0	34,2	35,0	10,684	-11,51			36.0.24,76	G.
	δ Leonis.....	277.35	3.45,0	41,2	37,8	39,1	37,7	37,0					277.38.39,60	G.
	β Leonis R. M....	30.0	3.40,6	37,8	33,0	35,0	34,1	33,9	7,515	+54,60			30.4.30,30	G.
May 15. 22 ^h . Molyneux fast on Hardy 54 ^s .	β Leonis.....	283.30	4.39,8	36,0	33,4	32,8	31,9	32,1					283.34.34,30	G.
	γ Ursæ Maj. R. M....	69.5	4.40,0	37,9	34,0	35,2	34,0	33,8	5,987	+1.26,46			69.11.2,24	G.
	γ Ursæ Majoris...	244.25	3.10,8	5,1	3,0	4,4	2,4	3,4					244.28.4,82	G.
	Σ 1619. <i>np</i>	305.20	3.45,3	40,5	39,8	38,2	37,3	37,2					305.23.39,68	G.
	Σ 1634.....	275.10	4.32,9	27,2	25,5	25,2	24,1	26,0			+1	+0,07	275.14.26,85	G.
	* R. 12 ^h . 13 ^m . 29 ^s n.	273.5	4.14,2	10,5	9,1	8,0	5,4	6,1	8,816	+27,25	-2	+0,29	273.9.36,39	G.

May 15. 22^h. Molyneux fast on Hardy 54^s.

(a) This observation does not well agree with that of May 4. (b) Both very faint; the second the fainter.
 (c) Cloudy and very faint. This is most probably the *np* star. See April 30 and May 4. (d) Times by Molyneux,
 13^h. 4^m. 22^s and 13^h. 4^m. 50^s. (e) Much clouded. (f) Very faint and uncertain. (g) Too faint for bisecting
 with certainty.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
31,98	36. 57. 42,06	30,020	56,0	57,1	43,39				74. 45. 33,73	-12,34	88 Leonis.
	23. 33. 19,94				25,15				61. 20. 53,37	-8,20	A.S.C. 1359.
	32. 20. 8,76				36,51				70. 7. 53,55	-11,14	Σ 1565.
	29. 20. 49,99				32,43				67. 8. 30,70	-10,82	Σ 1582.
	10. 18. 27,02				10,49				48. 5. 45,79	-5,29	Σ 1585.
	11. 26. 28,68			56,7	11,69				49. 13. 48,65	-6,29	Σ 1606.
	58. 34. 12,10				1. 34,18				96. 22. 54,56	-19,77	Σ 1619.
	55. 16. 4,98				1. 23,08				93. 4. 36,34	-18,91	Piazzi XII. 33.
	67. 33. 39,74	30,050	53,8	52,5	2. 20,18				105. 23. 8,20	-18,29	α ² Libræ R.
	67. 33. 39,76								105. 23. 8,22		α ² Libræ.
33,46	-22. 34. 41,25				24,24				15. 12. 2,79	-9,26	β Ursæ Min. R.
	-22. 34. 38,27								15. 12. 5,77		β Ursæ Minoris.
	46. 16. 39,63			49,7	1. 1,22				84. 4. 49,13	-15,87	Σ 1943.
	46. 9. 13,83				1. 0,96				83. 57. 23,07	-15,75	Σ 1953.
32,10	55. 28. 36,86	30,046	51,7	48,7	1. 25,18				93. 17. 10,32	-14,18	δ Ophiuchi R.
	55. 28. 37,11								93. 17. 10,57		δ Ophiuchi.
33,24	33. 52. 15,72	30,132	55,6	60,0	38,62	4,70		15. 50,10	71. 24. 7,82		⊙.
	33. 20. 35,91				37,86	4,63			71. 24. 7,52		⊙.
	-2. 5. 24,70	30,232	56,6	56,0	2,13				35. 41. 41,45	-2,77	Σ 1608.
	26. 20. 3,95				28,82				64. 7. 41,05	-10,73	* R. 12 ^h . 13 ^m . 29 ^s .
	25. 45. 0,75				28,08				63. 32. 37,11	-10,65	Σ 1639.
	-39. 18. 20,67		55,5	53,8					-1. 32. 0,24		Polaris SP. R.
	-39. 18. 18,12				47,85				-1. 31. 57,69	+0,63	Polaris SP.
	2. 6. 43,33	30,242	54,6	52,5	2,16				39. 53. 53,77	-8,77	η Ursæ Maj. R.
	2. 6. 43,91								39. 53. 54,35		η Ursæ Majoris.
	33. 0. 54,81				38,10				70. 48. 41,19	-14,68	η Bootis R.
32,31	33. 0. 55,50								70. 48. 41,88		η Bootis.
31,98	33. 23. 49,09	30,376	57,7	59,0	38,32	4,64		15. 49,80	70. 55. 41,25		⊙.
	32. 52. 9,30				37,56	4,57			70. 55. 40,37		⊙.
	38. 7. 43,94	30,320	59,4	58,9					75. 35. 26,25		⋯.
	38. 7. 45,06								75. 35. 27,37		⋯.
	38. 7. 44,54				45,54	36. 19,06		16. 7,55	75. 35. 26,85		⋯.
	38. 7. 45,74								75. 35. 28,05		⋯.
	38. 7. 45,77								75. 35. 28,08		⋯.
	41. 35. 40,28				51,49				79. 23. 40,05	-9,24	14 Leonis.
	39. 28. 1,89			57,6	47,89				77. 15. 58,06	-9,75	Regulus R.
	39. 28. 1,90								77. 15. 58,07		Regulus.
32,54	-10. 23. 11,53		57,6	56,2	10,70				27. 23. 46,05	+3,13	α Ursæ Maj. R.
	-10. 23. 10,40								27. 23. 47,18		α Ursæ Majoris.
34,07	-9. 39. 10,80	30,290	48,0	45,1	10,15				28. 7. 47,33	-13,19	η Draconis R.
	-9. 39. 6,60								28. 7. 51,53		η Draconis.
33,34	56. 4. 9,95				1. 28,44	2,99			93. 52. 43,68		Juno.
	43. 58. 14,18	30,144	54,5	53,6					81. 21. 31,41		⋯.
	43. 58. 14,04								81. 21. 31,27		⋯.
	43. 58. 14,38				56,23	40. 56,50		16. 9,22	81. 21. 31,61		⋯.
	43. 58. 14,79								81. 21. 32,02		⋯.
	43. 58. 14,71								81. 21. 31,94		⋯.
	42. 5. 7,50				52,64				79. 53. 8,42	-11,59	ρ Leonis.
	-10. 23. 11,36	30,136	53,3	51,7					27. 23. 46,19	+3,21	α Ursæ Maj. R.
	-10. 23. 8,62								27. 23. 48,93		α Ursæ Majoris.
	30. 49. 7,21				34,92				68. 36. 50,41	-9,35	δ Leonis R.
32,18	30. 49. 7,63								68. 36. 50,83		δ Leonis.
32,30	36. 45. 1,67		52,4	50,3	43,82				74. 32. 53,77	-12,47	β Leonis R.
	36. 45. 2,33								74. 32. 54,43		β Leonis.
33,53	-2. 21. 30,27				2,42				35. 25. 35,59	-1,31	γ Ursæ Maj. R.
	-2. 21. 27,15								35. 25. 38,71		γ Ursæ Majoris.
	58. 34. 7,71			49,2	1. 35,99				96. 22. 51,98	-19,67	Σ 1619. np.
	28. 24. 54,88				31,83				66. 12. 34,99	-10,93	Σ 1634.
	26. 20. 4,42				29,12				64. 7. 41,82	-10,35	* R. 12 ^h . 13 ^m . 29 ^s .

Coincidence of Micrometer Wire with fixed Wire = 10', 122, 10', 129, 10', 132, 10', 136, 10', 142.

One Micrometer Revolution = 20'', 859.

Correction for Runs = - 0'', 2.

Adopted Zenith Point = 246°. 49'. 31'', 97.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.
			A	B	C	D	E	F						
May 19	) N.L. M.	303.30	2.10,1	7,5	5,0	5,6	3,8	3,6	9,730	+8,18	-2	+8,68	303.32.22,78	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,552	+12,04	-1	+4,34	303.32.22,30	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,369	+15,91			303.32.21,83	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,145	+20,67	+1	-4,34	303.32.22,25	G.
	) N.L. M. ....	...	...	...	...	...	...	...	8,940	+25,07	+2	-8,68	303.32.22,31	G.
	(a) Σ 1634 M.	275.10	4.41,5	38,5	35,6	37,0	35,0	36,4	10,613	-9,65	+3	+0,60	275.14.28,25	G.
	* R. 12 ^h . 13 ^m . 29 ^s .	273.5	4.41,4	37,0	35,6	35,1	33,2	33,1			+2	+0,29	273.9.36,16	G.
	A.S.C. 1440	288.25	1.20,4	16,5	13,5	15,9	13,3	12,9					288.26.15,40	G.
	q Virginis	307.35	0.51,0	47,9	44,3	45,8	44,8	43,4					307.35.46,20	G.
	24 Comæ Berenices	279.45	2.10,9	6,8	4,5	4,7	4,4	3,6					279.47.5,80	G.
	γ Virginis	299.35	1.26,4	21,3	18,5	19,4	18,2	17,4					299.36.20,18	G.
	35 Comæ Berenices	276.55	0.46,7	42,0	39,7	40,9	39,9	38,8					276.55.41,33	G.
	Σ 1751.	288.50	3.46,4	42,8	39,0	40,4	39,1	39,0					288.53.41,08	G.
	Σ 1760.	271.55	1.55,9	51,1	49,4	49,0	48,1	47,1					271.56.50,08	G.
	(b) 81 Virginis	306.0	4.59,5	55,9	54,0	55,0	54,0	51,9					306.4.55,05	G.
	84 Virginis	294.40	1.17,1	13,4	9,7	12,1	9,9	8,3					294.41.11,75	G.
	η Ursæ Maj. R. M.	64.40	1.19,9	18,0	13,3	16,0	14,0	12,8	5,649	+1.33,72	+2	-0,72	64.42.48,65	G.
	η Ursæ Majoris ...	248.55	1.20,8	17,1	13,2	14,4	13,9	12,7			+2½	+1,12	248.56.16,45	G.
	A.S.C. 1585.	306.15	2.51,3	47,0	44,4	46,2	44,5	44,4					306.17.46,27	G.
	Σ 1813. sp. M.	292.50	2.30,9	26,9	23,3	25,0	22,9	23,1	8,118	+42,01			292.53.7,34	G.
	Arcturus R. M.	34.35	2.24,0	20,4	15,8	18,1	16,8	16,1	9,490	+13,49			34.37.32,01	G.
	Arcturus	279.0	1.40,7	35,0	31,9	33,9	32,3	32,2					279.1.34,32	G.
	Σ 1870 M.	290.15	2.35,0	30,4	27,1	28,2	25,8	27,2	12,729	-54,18			290.16.34,75	G.
	ε Bootis R. M.	42.20	2.30,1	28,3	23,0	25,8	23,8	24,5	12,672	-52,98			42.21.32,92	G.
	(c) ε Bootis	271.15	2.39,5	33,8	32,2	32,2	31,1	32,0					271.17.33,43	G.
	β Ursæ Min. R. M.	89.20	2.41,0	37,8	33,0	35,6	33,8	33,8	5,373	+1.39,27			89.24.15,07	G.
	β Ursæ Minoris ...	224.10	4.59,0	53,5	52,5	51,0	51,8	50,9					224.14.53,08	G.
	(d) Σ 1953.	292.55	3.56,4	51,2	49,6	49,4	48,1	47,4					292.58.50,32	G.
	δ Serpentis	287.55	2.36,4	31,4	29,3	30,7	28,4	29,8					287.57.30,97	G.
	(e) Juno M.	302.35	4.38,7	35,1	33,8	32,8	31,4	32,1	3,367	+2.21,10			302.41.55,05	G.
May 23	⊙ N.L. M.	278.10	2.33,0	30,3	26,0	28,2	28,4	26,0	9,750	+7,97			278.12.36,60	G.
	⊙ S.L.	278.40	4.16,9	14,3	10,3	11,8	11,1	8,8					278.44.12,17	G.
	24 Comæ Berenices	279.45	2.7,2	6,6	2,3	4,5	5,1	1,4					279.47.4,50	G.
	Σ 1719.	297.35	0.25,0	24,9	19,0	20,9	19,3	18,7					297.35.21,30	G.
	(f) Polaris SP. R. M.	106.5	1.43,8	42,3	36,9	39,0	38,4	36,9	6,536	+1.15,02		+0,22	106.7.54,77	G.
	Polaris SP.	207.30	1.15,3	14,5	8,2	11,0	9,9	8,9				-0,30	207.31.11,00	G.
	β Ursæ Min. R. M.	89.20	2.39,5	36,9	31,8	35,2	34,0	34,8	5,379	+1.39,14			89.24.14,47	G.
	β Ursæ Minoris ...	224.10	4.53,8	51,0	47,7	47,6	48,3	48,6					224.14.49,47	G.
	20 Libræ	323.35	2.62,7	60,8	58,1	59,1	58,9	56,7					323.37.59,35	G.
	ι Libræ	318.10	1.12,7	10,2	6,9	9,1	8,4	6,2					318.11.8,92	G.
May 24	24 Comæ Berenices	279.45	2.8,4	6,9	2,9	5,0	4,4	2,3					279.47.4,97	G.
	γ Virginis	299.35	1.24,1	22,0	17,9	19,9	18,4	16,4					299.36.19,77	G.
	35 Comæ Berenices	276.55	0.45,0	42,0	39,7	41,7	40,0	38,6					276.55.41,17	G.
	Σ 1719.	297.35	0.25,0	23,4	18,8	20,2	18,7	18,3					297.35.20,73	G.
	(g) Polaris SP. R. M.	106.5	1.28,9	26,4	21,4	24,0	22,4	20,4	5,735	+1.31,73		+0,17	106.7.55,80	G.
	Polaris SP.	207.30	1.17,0	15,0	9,5	11,4	9,5	9,9				-0,22	207.31.11,83	G.
	η Ursæ Maj. R. M.	64.40	1.38,2	38,2	33,0	36,0	34,2	33,3	6,540	+1.14,93			64.42.50,40	G.
	η Ursæ Majoris ...	248.55	1.18,1	14,8	11,9	13,5	11,3	11,1					248.56.13,45	G.
	η Bootis R. M.	33.45	2.23,0	22,0	17,0	19,2	16,9	17,5	6,386	+1.18,14			33.48.37,39	G.
	η Bootis	279.50	0.29,9	27,5	24,0	27,0	24,0	24,0					279.50.26,07	G.
	Σ 1813.	292.50	3.11,1	8,5	5,8	6,0	4,3	3,9					292.53.6,57	G.
	ζ Ursæ Min. R. M.	92.50	2.14,2	12,4	9,9	12,6	8,9	7,9	8,620	+31,54			92.52.42,51	G.
	ζ Ursæ Minoris ...	220.45	1.28,9	25,9	20,9	24,9	22,8	22,0					220.46.24,22	G.
	β ¹ Scorpil.	318.20	1.50,7	46,3	43,9	44,9	44,3	43,1					318.21.45,52	G.
	(h)) S.L. M.	325.30	3.64,9	61,0	60,2	58,2	59,2	58,3	9,494	+13,11	-2	+1,56	325.34.14,94	G.
	) S.L. M. ....	...	...	...	...	...	...	...	9,460	+13,96	-1	+0,78	325.34.15,01	G.
	) S.L. M. ....	...	...	...	...	...	...	...	9,397	+15,33			325.34.15,60	G.
	) S.L. M. ....	...	...	...	...	...	...	...	9,445	+14,42	+1	-0,78	325.34.13,91	G.
	) S.L. M. ....	...	...	...	...	...	...	...	9,420	+15,06	+2	-1,56	325.34.13,77	G.

May 24. 10^h, Molyneux fast on Hardy, 58^s.6.

- (a) Barely visible.
 (b) No correction for Runs.
 (c) Unsteady blur.
 (d) Too faint for a good bisection.

- (e) A preceding object thought to be Juno was bisected by the fixed wire.
 (f) Times by Molyneux, 13^h.4^m.44^s and 13^h.5^m.4^s.
 (g) Times by Molyneux, 13^h.4^m.30^s and 13^h.4^m.44^s.
 (h) Extremely rough and unsteady.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	" ' "	Inch.	"	"	" "	" "	"	" "	" ' "	"	"
32,55	56.42.50,81	29,656	51,6	49,5					93.58.17,13		♃.
	56.42.50,33								93.58.16,65		♃.
	56.42.49,86				1.27,92	49.17,98		16.8,10	93.58.16,18		♃.
	56.42.50,28								93.58.16,60		♃.
	56.42.50,34								93.58.16,66		♃.
	28.24.56,28	29,650	51,0	49,0	31,34				66.12.35,90	-10,69	Σ 1634.
	26.20.4,19				28,67				64.7.41,14	-10,09	* <i>Ar.</i> 12 ^h . 13 ^m . 29 ^s .
	41.36.43,43				51,41				79.24.43,12	-14,83	A.S.C. 1440.
	60.46.14,23				1.43,14				98.35.5,65	-20,29	γ Virginis.
	32.57.33,83				37,55				70.45.19,66	-12,38	24 Comæ Beren.
33,17	52.46.48,21				1.16,11				90.35.12,60	-18,13	γ Virginis.
	30.6.9,36				33,57				67.53.51,21	-12,03	35 Comæ Beren.
	42.4.9,11	29,648	50,7	48,6	52,28				79.52.9,67	-15,70	Σ 1751.
	25.7.18,11				27,18				62.54.53,57	-11,84	Σ 1760.
	59.15.23,08				1.37,15				97.4.8,51	-19,46	81 Virginis.
	47.51.39,78				1.3,98				85.39.52,04	-16,99	84 Virginis.
	2.6.43,32				2,14				39.53.53,74	-7,52	η Ursæ Maj. R.
	2.6.44,48								39.53.54,90		η Ursæ Majoris.
	59.28.14,30				1.37,97				97.17.0,55	-19,17	A.S.C. 1585.
	46.3.35,37	29,638	49,4	47,3	1.0,22				83.51.43,87	-16,45	Σ 1813. <i>sp.</i>
33,17	32.11.59,96				36,58				69.59.44,82	-14,67	Arcturus R.
	32.12.2,35				46,2				69.59.47,21		Arcturus.
	43.27.2,78				55,12				81.15.6,18	-15,70	Σ 1870.
	24.27.59,05				26,50				62.15.33,83		ε Bootis R.
	24.28.1,46								62.15.36,24	-12,99	ε Bootis.
	-22.34.43,10				24,22				15.12.0,96		β Ursæ Min. R.
	-22.34.38,89								15.12.5,17	-7,46	β Ursæ Minoris.
	46.9.18,35	29,610	47,5	44,8	1.0,68				83.57.27,31	-14,99	Σ 1953.
	41.7.59,00				50,92				78.55.58,20	-14,63	δ Serpentis.
	55.52.23,08	29,600	47,0	44,5	1.25,91	2,99			93.40.54,28		Juno.
32,89	31.23.4,63	29,774	59,0	59,7	34,71	4,38		15.48,50	69.26.31,74		⊙.
	31.54.40,20				35,43	4,45			69.26.30,96		⊙.
	32.57.32,53	29,816	56,4	54,8	37,31				70.45.18,12	-11,93	24 Comæ Beren.
	50.45.49,33				54,2				88.34.8,07	-17,47	Σ 1719.
	-39.18.22,80								-1.32.1,67		Polaris SP. R.
	-39.18.20,97				47,15				-1.31.59,84	-0,92	Polaris SP.
	-2.34.42,50		52,0	50,8	24,13				15.12.1,65	-6,30	β Ursæ Min. R.
	-22.34.42,50								15.12.1,65		β Ursæ Minoris.
	76.48.27,38				4.2,52				114.39.38,18	-18,66	20 Libræ.
	71.21.36,95				2.50,29				109.11.35,52	-17,66	♄ Libræ.
33,81	32.57.33,00	29,742	55,4	53,2	37,34				70.45.18,62	-11,82	24 Comæ Beren.
	52.46.47,80				1.15,69				90.35.11,77	-17,87	γ Virginis.
	30.6.9,20				33,39				67.53.50,87	-11,38	35 Comæ Beren.
	50.45.48,76			51,5	1.10,66				88.34.7,70	-17,40	Σ 1719.
	-39.18.23,83				47,30				-1.32.2,85		Polaris SP. R.
	-39.18.20,14								-1.31.59,16	-1,07	Polaris SP.
	2.6.41,57				2,13				39.53.51,98	-6,36	η Ursæ Maj. R.
	2.6.41,48								39.53.51,89		η Ursæ Majoris.
	33.0.54,58				37,55				70.48.40,41	-13,18	η Bootis R.
	33.0.54,10				59,92				70.48.39,93		η Bootis.
33,37	46.3.34,60								83.51.42,80	-15,93	Σ 1813.
	-26.3.10,54		51,2	48,1	28,45				11.43.29,29	-8,32	ζ Ursæ Min. R.
	-26.3.7,75								11.43.32,08		ζ Ursæ Minoris.
	71.32.13,55				2.52,55				109.22.14,38	-14,19	β ¹ Scorpii.
	78.44.42,97	29,734	50,0	46,4					115.25.15,95		♃.
	78.44.43,04								115.25.16,02		♃.
	78.44.43,63				4.45,39	55.48,18		15.32,51	115.25.16,61		♃.
	78.44.41,94								115.25.14,92		♃.
	78.44.41,80								115.25.14,78		♃.

Coincidence of Micrometer Wire with fixed Wire = 10', 122, 10', 129, 10', 132, 10', 136, 10', 142 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = - 0'', 2.

Adopted Zenith Point = 246°. 49'. 31'', 97.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
May 24	(a) A Ophiuchi	325.15	4.45,9	40,8	40,6	39,8	38,0	39,0					325.19.40,65	G.
	θ Ophiuchi	323.45	3.23,1	28,2	27,5	27,3	26,5	26,0					323.48.26,40	G.
May 25	A.S.C. 1440	288.25	1.18,9	18,2	14,0	16,4	14,0	12,1					288.26.15,58	G.
	γ Virginis	299.35	1.24,0	23,0	17,7	19,8	18,8	16,2					299.36.19,90	G.
	35 Comæ Berenices	276.55	0.44,6	43,2	38,8	42,0	40,8	39,0					276.55.41,40	G.
	Polaris SP. R. M.	106.5	1.45,9	44,1	38,8	41,0	40,0	37,9	6,616	+1.13,35			106.7.54,62	G.
	Polaris SP.	207.30	1.16,4	14,0	9,4	11,4	10,1	9,0					207.31.11,72	G.
May 26	Spica R. M.	4.15	3.13,0	10,1	8,2	9,9	9,4	6,9	10,286	-3,21			4.18.6,34	G.
	Spica	309.20	0.60,9	57,7	55,5	56,7	56,7	53,9					309.20.56,90	G.
	Σ 1751.	288.50	3.45,0	39,2	38,0	39,6	38,5	38,6					288.53.39,78	G.
	Σ 1760.	271.55	1.54,1	49,3	47,2	48,3	47,9	46,4					271.56.48,85	G.
	84 Virginis	294.40	1.16,0	10,7	9,0	11,1	10,9	7,8					294.41.10,92	G.
	η Ursæ Maj. R. M.	64.40	1.18,0	13,8	12,0	14,3	12,8	12,1	5,533	+1.35,94			64.42.49,77	G.
	η Ursæ Majoris...	248.55	1.17,5	12,1	10,2	12,2	10,2	9,0					248.56.11,87	G.
	η Bootis R. M. ...	33.45	2.21,5	17,8	14,5	16,9	14,3	15,4	6,272	+1.20,52			33.48.37,24	G.
	η Bootis	279.50	0.30,9	25,5	23,4	25,9	23,4	23,2					279.50.25,38	G.
	⊙ S.L. M.	277.50	0.50,8	49,1	44,5	47,1	46,3	42,8	9,490	+13,39			277.51.0,16	G.
May 28	⊙ N.L.	277.15	4.29,8	25,8	23,0	23,8	22,7	21,2					277.19.24,35	G.
	(b) Capella R. M.	60.20	4.34,8	32,3	28,9	28,9	30,9	30,0	3,954	+2.8,87			60.26.39,80	G.
	Capella	253.10	2.29,2	26,4	21,8	25,6	24,1	22,8			+1	+0,16	253.12.25,13	G.
	α Ursæ Maj. R. M.	77.10	2.20,8	14,6	11,9	13,6	13,3	12,1	8,730	+29,24			77.12.43,61	G.
	α Ursæ Majoris...	236.25	1.26,0	24,1	17,3	20,1	22,3	19,2					236.26.21,48	G.
	δ Ophiuchi R. M.	11.20	0.30,2	27,6	23,6	26,8	25,5	23,7	8,726	+29,33			11.20.55,56	G.
	δ Ophiuchi	302.15	3.13,8	9,5	8,3	8,2	7,0	6,0					302.18.8,77	G.
	(c) ⊙ S.L. M.	277.30	1.35,2	34,9	28,0	32,9	31,2	27,7	8,048	+43,47			277.32.15,10	G.
	⊙ N.L.	277.0	0.43,0	41,9	36,6	41,2	38,9	36,2					277.0.39,63	G.
	Σ 1751.	288.50	3.44,8	39,1	37,0	39,0	37,9	36,9					288.53.39,08	G.
May 30	Σ 1760.	271.55	1.53,6	48,8	46,1	48,4	46,8	46,1					271.56.48,28	G.
	81 Virginis	306.0	4.58,7	54,9	52,5	53,1	53,6	52,0					306.4.54,10	G.
	84 Virginis	294.40	1.16,4	10,9	9,0	11,4	8,9	7,0					294.41.10,60	G.
	A.S.C. 1585.	306.15	2.49,9	44,8	43,5	44,0	44,3	43,8					306.17.45,02	G.
	Σ 1793.	272.25	1.58,9	51,9	51,1	52,0	50,0	51,0					272.26.52,47	G.
	α Cor. Bor. R. M.	41.50	1.33,2	30,0	25,3	28,8	27,2	27,4	8,744	+28,96			41.51.57,59	G.
	α Coronæ Borealis	271.45	2.11,5	6,2	4,9	5,8	4,1	3,6					271.47.6,00	G.
	ζ Ursæ Min. R. M.	92.50	2.29,3	24,8	21,4	25,0	21,0	22,8	9,110	+21,32			92.52.45,35	G.
	ζ Ursæ Minoris...	220.45	1.28,0	22,9	18,0	22,1	19,9	20,0					220.46.21,80	G.
	(d) ⊙ N.L. M.	276.50	1.42,3	41,5	35,8	39,8	39,0	37,1	9,395	+15,21			276.51.54,44	G.
May 31	⊙ S.L.	277.20	3.28,9	27,4	22,5	25,0	23,9	21,8					277.23.24,88	G.
	Polaris SP. R. M.	106.5	2.27,1	21,9	18,0	20,8	19,0	17,8	8,411	+35,73			106.7.56,48	G.
	Polaris SP.	207.30	1.15,1	12,0	7,1	9,4	9,0	7,0					207.31.9,92	G.
	Σ 1734.	295.15	0.13,7	10,1	7,0	10,2	9,0	5,4					295.15.9,23	G.
	Σ 1742.	296.45	2.60,5	57,1	53,8	56,3	54,2	52,4					296.47.55,68	G.
	Piazzi XIII. 127.	298.30	1.42,1	38,1	34,0	37,3	35,4	35,0					298.31.36,97	G.
	(e) 81 Virginis	306.0	4.59,7	55,6	52,7	56,0	54,7	53,3					306.4.55,33	G.
	Σ 1768.	261.55	1.17,1	11,9	9,6	12,8	10,7	9,0					261.56.11,83	G.
	Σ 1776.	252.0	1.19,9	16,9	12,2	15,0	13,1	12,0					252.1.14,83	G.
	η Ursæ Maj. R. M.	64.40	1.41,0	37,5	32,9	37,3	35,5	35,4	6,585	+1.13,83			64.42.50,41	G.
May 31	η Ursæ Majoris...	248.55	1.17,1	12,3	9,0	11,9	9,3	9,1					248.56.11,43	G.
	Σ 1793.	272.25	1.59,1	54,8	52,0	54,2	53,0	52,1					272.26.54,18	G.
	Σ 1807.	301.35	1.23,4	19,3	15,7	18,5	16,8	15,8					301.36.18,23	G.
	Σ 1813.	292.50	3.10,6	7,8	3,9	6,5	3,9	3,9					292.53.6,07	G.
	α Cor. Bor. R. M.	41.50	2.20,6	16,9	13,2	16,0	15,9	15,3	10,970	-17,65			41.51.58,65	G.
	α Coronæ Borealis	271.45	2.11,1	6,9	5,0	5,9	4,5	3,0					271.47.6,05	G.
	⊙ N.L. M.	303.45	2.63,3	60,2	57,7	59,0	57,0	56,9	10,968	-17,81	-2	-7,23	303.47.33,94	G.
	⊙ N.L. M. ....	...	...	...	...	...	...	...	11,140	-21,26	-1	-3,62	303.47.34,10	G.
	⊙ N.L. M. ....	...	...	...	...	...	...	...	11,304	-24,62			303.47.34,36	G.
	⊙ N.L. M. ....	...	...	...	...	...	...	...	11,512	-28,87	+1	+3,62	303.47.33,73	G.
	⊙ N.L. M. ....	...	...	...	...	...	...	...	11,710	-32,88	+2	+7,23	303.47.33,33	G.

Runs and Coincidence at middle wire taken June 5. 23^h.

(a) Very faint.
 (b) Very unsteady.
 (c) Great motion.

(d) Much waving
 (e) No correction for Runs.

[illegible]

Coincidence of Micrometer Wire with fixed Wire = 10',122, 10',129, 10',132, 10',136, 10',142 at the five wires. From

May 31 = 10^r,114, 10^r,121, 10^r,124, 10^r,128, 10^r,134.

One Micrometer Revolution = $20''$,859.

Correction for Runs = $-0''.2$. From May 31 = $-0''.3$.

Adopted Zenith Point = $246^{\circ}.49'.31''.97$.

Assumed Co-latitude = $37^{\circ}.47'.8'',28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. ' "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
June 1	⊙ N.L. M.	276.40	2.17,3	16,7	11,0	13,7	13,0	10,8	6,553	+1.14,49			276.43.28,22	G.
	⊙ S.L.	277.10	4.64,2	61,2	58,5	59,1	58,6	56,6					277.14.59,65	G.
	Σ 1719.	297.35	0.25,7	22,1	16,9	21,2	19,2	18,9					297.35.20,67	G.
	Σ 1734.	295.15	0.13,7	9,1	5,8	10,1	7,7	5,7					295.15.8,68	G.
	Σ 1742.	296.45	2.61,1	57,0	53,8	56,8	54,2	53,6	6,370	+1.18,30			296.47.56,05	G.
	Piazzi XIII. 127..	298.30	1.41,3	36,5	32,8	36,1	35,3	34,0					298.31.35,98	G.
	Σ 1768.	261.55	1.17,1	10,8	8,9	12,8	9,9	9,1					261.56.11,42	G.
	Σ 1776.	252.0	1.19,8	14,1	11,4	14,3	11,7	11,7					252.1.13,82	G.
	η Ursæ Maj. R. M.	64.40	1.38,1	34,8	29,5	33,8	32,3	32,0	6,556	+1.14,43			64.42.51,70	G.
	η Ursæ Majoris...	248.55	1.16,8	10,1	8,0	11,0	9,9	8,9					248.56.10,77	G.
	Σ 1807.	301.35	1.24,4	19,9	16,1	18,8	17,7	16,4					301.36.18,87	G.
	ζ Ursæ Min. R. M.	92.50	1.37,9	32,8	28,0	33,7	29,4	30,8					92.52.46,51	G.
	(a) ζ Ursæ Minoris...	220.45	1.25,0	18,9	14,9	19,1	18,3	16,9					220.46.18,83	G.
June 2	(a) ⊙ S.L. M.	277.5	1.27,8	24,2	19,7	24,0	21,7	19,9	8,399	+35,98			277.6.58,85	G.
	⊙ N.L.	276.35	0.28,0	24,7	19,7	25,0	22,3	21,1					276.35.23,47	G.
June 3	(b) ⊙ N.L. M.	276.25	2.18,6	16,9	11,4	15,1	12,7	11,9	8,583	+32,14			276.27.46,56	G.
	⊙ S.L.	276.55	4.22,0	18,7	15,6	18,1	16,2	15,9					276.59.17,70	G.
	Capella R. M.	60.20	4.29,9	27,2	22,1	24,6	23,4	24,9					60.26.38,55	G.
	Capella	253.10	2.30,1	26,9	22,0	26,0	24,1	22,3					253.12.25,22	G.
	Σ 1734.	295.15	0.12,7	9,8	4,9	10,8	7,8	4,7	3,736	+2.13,25			295.15.8,45	G.
	Σ 1742.	296.45	2.61,4	58,0	54,8	57,7	54,0	54,0					296.47.56,62	G.
	Piazzi XIII. 127..	298.30	1.41,5	37,5	33,0	37,7	34,2	34,9					298.31.36,45	G.
	Σ 1768.	261.55	1.16,3	13,8	9,3	14,1	10,3	8,3					261.56.12,00	G.
	Σ 1776.	252.0	1.18,9	14,2	10,4	14,7	11,3	10,2	5,485	+1.36,78			252.1.13,27	G.
	η Ursæ Maj. R. M.	64.40	1.19,9	15,3	12,2	15,0	12,4	12,7					64.42.51,35	G.
	η Ursæ Majoris ..	248.55	1.16,4	11,9	8,2	11,4	9,9	8,8					248.56.11,08	G.
	A.S.C. 1585.	306.15	2.52,7	49,0	45,0	48,6	47,9	46,1					306.17.48,18	G.
	Σ 1793.	272.25	1.57,9	54,0	50,8	53,9	52,4	50,1	9,190	+19,48			272.26.53,17	G.
	Σ 1807.	301.35	1.22,8	19,0	15,0	18,9	16,4	14,9					301.36.17,82	G.
	Σ 1817 M.	271.35	0.39,3	36,4	32,1	35,3	33,1	32,3					271.35.54,23	G.
	Σ 1823.	287.55	3.66,4	61,4	59,0	63,0	61,0	58,7					287.59.1,55	G.
	η Draconis R. M..	76.25	2.26,9	23,8	19,4	23,8	20,8	20,0	6,018	+1.25,65			76.28.48,08	G.
	η Draconis	237.10	0.25,1	19,0	15,0	18,4	15,3	18,6					237.10.18,57	G.
June 4	⊙ S.L. M.	276.50	1.40,4	41,6	34,0	39,1	38,5	35,2	8,837	+26,85			276.52.4,97	G.
	⊙ N.L.	276.20	0.34,0	32,0	24,0	30,4	28,8	25,5					276.20.29,12	G.
June 6	⊙ S.L. M.	276.35	3.26,1	24,2	18,4	23,8	21,3	19,9	9,074	+21,90			276.38.44,15	G.
	⊙ N.L.	276.5	2.14,0	11,0	4,1	9,9	7,5	6,1					276.7.8,75	G.
	(c) Σ 1817 M.	271.35	1.37,9	33,3	29,4	33,8	31,8	30,4	11,980	-38,72			271.35.54,03	G.
	Σ 1823.	287.55	3.67,0	62,0	58,7	62,5	60,8	59,4					287.59.1,70	G.
	Piazzi XIV. 62. np.	306.0	3.28,9	22,2	19,5	22,1	23,2	20,0	10,012	+2,34			306.3.22,62	G.
	(d) Piazzi XIV. 70. ...	309.55	2.51,8	45,9	53,1	46,1	45,2	43,5					309.57.47,57	G.
	(e) Σ 1847.	308.30	0.35,9	32,0	27,9	30,9	30,0	28,3					308.30.30,83	G.
	(f) ε Bootis R. M.	42.20	1.38,6	33,2	29,6	33,0	33,0	31,7					42.21.35,51	G.
	ε Bootis	271.15	2.35,0	30,0	25,9	29,9	27,4	28,2	8,948	+24,54			271.17.29,38	G.
	δ Ophiuchi R. M..	11.20	0.34,6	31,2	26,8	31,4	29,6	28,2					11.20.54,84	G.
	δ Ophiuchi	302.15	3.13,0	7,9	7,4	7,9	6,8	4,8					302.18.7,93	G.
	(g) Juno	301.50	2.64,0	57,9	57,2	58,1	56,8	55,9					301.52.58,28	G.
	η Draconis R. M..	76.25	2.31,9	25,9	22,4	26,8	23,9	24,0	6,250	+1.20,81			76.28.46,61	G.
	η Draconis	237.10	0.24,2	19,0	13,8	18,9	17,1	16,9					237.10.18,32	G.
June 7	⊙ N.L. M.	276.0	1.27,0	25,0	19,7	23,1	22,3	20,0	10,915	-16,50			276.1.6,33	G.
	⊙ S.L.	276.30	2.42,3	39,1	33,8	38,0	37,8	35,2					276.32.37,67	G.
	Σ 1817 M.	271.35	1.25,1	20,0	16,4	20,4	15,8	17,8	11,292	-24,37			271.35.54,86	G.
	Piazzi XIV. 62. ...	306.0	3.28,8	21,2	18,9	21,6	19,0	20,0					306.3.21,55	G.
	Piazzi XIV. 70. ...	309.55	2.52,9	44,0	43,1	44,8	42,8	42,9	10,000	+2,59			309.57.45,05	G.
	(h) δ Ursæ Min. R. M.	101.10	1.31,1	26,0	24,2	25,9	23,4	21,8					101.11.27,97	G.
	δ Ursæ Minoris...	212.25	2.46,6	39,5	36,5	41,6	36,8	38,4					212.27.39,87	G.

(a) Very cloudy. (b) Badly defined. (c) Not good.
 (d) The only star in the field.
 (e) The N.P.D. differs nearly 5' from Struve's. It is
 however the right star.

(f) The micrometer was read 9'.
 (g) Excessively faint.
 (h) Too near the fixed wire.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
31,24	29.53.56,25	30,150	64,3	64,5	32,82	4,18		15.47,20	67.57.20,37		⊙.
	30.25.27,68				33,52	4,25			67.57.18,03		⊙.
	50.45.48,70	30,072	64,7	63,8	1.9,70				88.34.6,68	-16,85	Σ 1719.
	48.25.36,71				1.4,19				85.13.49,18	-16,14	Σ 1734.
	49.58.24,08				1.7,78				87.46.40,14	-16,59	Σ 1742.
	51.42.4,01			62,4	1.12,27				89.30.24,56	-16,98	Piazzi XIII. 127.
	15.6.39,45				15,44				52.54.3,17	-7,22	Σ 1768.
	5.11.41,85				5,20				42.58.55,33	-5,09	Σ 1776.
	2.6.40,27				2,11				39.53.50,66	-4,64	η Ursæ Maj. R.
	2.6.38,80								39.53.49,19		η Ursæ Majoris.
32,67	54.46.46,90			62,0	1.20,87			15.47,00	92.35.16,05	-17,17	Σ 1807.
	-26.3.14,54	30,050	61,4	60,7	28,03				11.43.25,71	-5,85	ζ Ursæ Min. R.
	-26.3.13,14								11.43.27,11		ζ Ursæ Minoris.
31,89	30.17.26,88	30,188	62,8	63,4	33,45	4,23		15.46,90	67.49.17,38		⊙.
	29.45.51,50				32,75	4,17			67.49.15,36		⊙.
	29.38.14,59	30,232	64,7	65,3	32,51	4,15			67.41.38,13		⊙.
	30.9.45,73				33,20	4,22			67.41.36,09		⊙.
	6.22.53,42				6,39				44.10.8,09	+5,41	Capella R.
	6.22.53,25								44.10.7,92		Capella.
	48.25.36,48	30,150	63,4	63,5	1.4,40				86.13.49,16	-16,00	Σ 1734.
	49.58.24,65				1.7,99				87.46.40,92	-16,42	Σ 1742.
	51.42.4,48			63,0	1.12,37				89.30.25,13	-16,84	Piazzi XIII. 127.
	15.6.40,03				15,46				52.54.3,77	-6,88	Σ 1768.
31,22	5.11.41,30				5,21			15.46,80	42.58.54,79	-4,72	Σ 1776.
	2.6.40,62				2,12				39.53.51,02	-4,28	η Ursæ Maj. R.
	2.6.39,11								39.53.49,51		η Ursæ Majoris.
	59.28.16,21				1.36,76				97.17.1,25	-18,59	A.S.C. 1585.
	25.37.21,20				27,46				63.24.56,94	-9,84	Σ 1793.
	54.46.45,85			62,0	1.21,08				92.35.15,21	-17,03	Σ 1807.
	24.46.22,26				26,47				62.33.57,01	-9,78	Σ 1817.
	41.9.29,58				50,11				78.57.27,97	-13,67	Σ 1823.
	-9.39.16,11	30,120	57,7	53,8	9,91				28.7.42,27	-7,33	η Draconis R.
	-9.39.13,40								28.7.44,97		η Draconis.
32,45	30.2.33,00	30,050	66,0	68,6	32,63	4,20		15.46,50	67.34.22,91		⊙.
	29.30.57,15				31,94	4,13			67.34.20,04		⊙.
	29.49.10,88	29,950	67,4	70,5	32,11	4,17			67.21.0,60		⊙.
	29.17.35,48				31,43	4,10			67.20.57,59		⊙.
	24.46.20,76	30,064	64,7	63,1	26,34				62.33.55,38	-9,26	Σ 1817.
	41.9.28,43				49,86				78.57.26,57	-13,30	Σ 1823.
	59.13.49,35				1.35,55				97.2.33,18	-17,64	Piazzi XIV. 62.np.
	63.8.14,30				1.52,17				100.57.14,75	-18,47	Piazzi XIV. 70.
	61.40.57,56				1.45,50				99.29.51,34	-17,99	Σ 1847.
	24.27.57,76			60,6	26,10				62.15.32,14	-9,33	ε Bootis R.
31,38	24.27.56,11							15.46,40	62.15.30,49		ε Bootis.
	55.28.38,43	30,090	61,7	58,0	1.23,70				93.17.10,41	-12,10	δ Ophiuchi R.
	55.28.34,66								93.17.6,64		δ Ophiuchi.
	55.3.25,01				1.22,41	2,95			92.51.52,75		Juno.
	-9.39.13,34				9,82				28.7.45,12	-6,37	η Draconis R.
	-9.39.14,95								28.7.43,51		η Draconis.
	29.11.33,06	30,188	66,0	67,8	31,72	4,09			67.14.55,37		⊙.
	29.43.4,40				32,40	4,16			67.14.54,52		⊙.
	24.46.21,59	30,242	62,4	59,2	26,70				62.33.56,57	-9,09	Σ 1817.
	59.13.48,28				1.36,87				97.2.33,43	-17,59	Piazzi XIV. 62.
33,92	63.8.11,78				1.53,72				100.57.13,78	-18,44	Piazzi XIV. 70.
	-34.21.54,70	30,236	57,0	54,1	39,96				3.24.33,62	-7,93	δ Ursæ Min. R.
	-34.21.53,40								3.24.34,92		δ Ursæ Minoris.

Coincidence of Micrometer Wire with fixed Wire = 10', 114, 10', 121, 10', 124, 10', 128, 10', 134 at the five wires.

One Micrometer Revolution = 20", 859.

Correction for Runs = - 0", 3.

Adopted Zenith Point = 246°. 49'. 31", 97. From June 6 = 246°. 49'. 33", 27.

Assumed Co-latitude = 37°. 47'. 8", 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	" "	" "	" "	" "	" "	" "	"	" "		"	° ' "	
June 7	α Lyræ R. M.	53.10	3.21,0	15,8	13,1	14,6	12,2	12,3	4,400	+1.59,40			53.15.14,20	G.
	α Lyræ.....	260.20	3.59,8	51,0	51,2	53,0	48,7	51,4					260.23.52,48	G.
	4 Aquilæ R. M. ...	16.25	4.26,6	21,8	20,8	21,2	17,8	19,7	2,177	+2.45,76			16.32.7,03	G.
	4 Aquilæ.....	297.25	1.67,6	59,7	59,6	60,8	55,9	58,5					297.7.0,33	G.
	β Lyræ R. M.	47.45	2.33,2	26,3	23,8	26,3	23,5	24,4	8,703	+29,64			47.47.55,87	G.
	β Lyræ.....	265.50	1.17,3	10,1	9,9	12,0	5,7	8,2					265.51.10,52	G.
	Saturn N.L.....	321.10	4.56,8	50,0	49,8	50,0	47,4	48,9					321.14.50,43	G.
June 8	⊙ S.L. M.....	276.20	4.36,8	34,0	28,0	31,3	31,8	28,9	3,130	+2.25,88			276.26.57,38	G.
	⊙ N.L.....	275.55	0.29,8	27,3	20,6	26,1	24,5	20,9					275.55.24,83	G.
	β Leonis R. M....	30.0	2.12,1	7,4	2,0	6,5	4,6	4,4	3,177	+2.24,90			30.4.30,93	G.
	β Leonis.....	283.30	4.39,8	35,0	30,8	33,4	32,9	32,0					283.34.33,68	G.
	γ Ursæ Maj. R. M.	69.5	4.40,7	35,8	31,4	35,0	33,5	33,8	5,799	+1.30,31	+1	-0,21	69.11.4,83	G.
	γ Ursæ Majoris...	244.25	2.68,1	62,1	57,2	61,8	60,1	59,9			+2	+0,85	244.28.2,18	G.
	Σ 1816.....	269.10	1.25,5	18,2	15,6	17,9	15,3	17,1			-2	+0,35	269.11.18,53	G.
	(a) Σ 1823.....	287.55	3.67,2	60,0	58,8	61,0	59,4	59,1					287.59.0,65	G.
	Piazzi XIV. 62. ...	306.0	3.27,9	19,5	18,9	19,1	19,4	18,3					306.3.20,30	G.
	Piazzi XIV. 70. ...	309.55	2.50,8	42,8	41,9	42,4	41,8	40,3					309.57.43,15	G.
	Σ 1847.....	308.30	0.38,8	31,1	28,2	29,9	28,8	28,4					308.30.30,83	G.
	Σ 1850. <i>sp.</i>	270.0	2.16,9	8,2	7,9	10,4	6,7	7,8					270.2.9,50	G.
	Σ 1866 M.....	288.50	1.35,8	27,3	25,3	28,8	24,5	25,1	16,078	-2.4,19			288.49.23,51	G.
	Σ 1867.....	267.0	3.55,3	47,9	46,0	48,0	45,1	47,3					267.3.48,02	G.
	Saturn S.L.	321.15	0.40,2	32,0	30,4	32,7	29,5	30,0					321.15.32,43	G.
June 9	Σ 1816.	269.10	1.25,7	18,7	15,5	19,4	15,2	17,8					269.11.18,63	G.
	(a) Σ 1847.	308.30	0.36,1	29,1	26,1	29,0	26,3	26,1					308.30.28,75	G.
	Σ 1850. <i>sp.</i>	270.0	2.18,1	10,2	8,4	11,4	7,8	8,6					270.2.10,60	G.
	Σ 1866 M.....	288.50	1.28,6	20,0	18,0	21,1	16,7	18,3	15,741	-1.57,18			288.49.23,19	G.
	Σ 1867.	267.0	3.55,0	46,6	45,6	47,5	43,4	46,0					267.3.47,10	G.
	Σ 1883 M.....	292.25	1.19,3	12,4	10,8	13,0	9,4	10,5	15,157	-1.44,99			292.24.27,49	G.
	Σ 1884.	274.0	0.36,5	29,2	27,2	30,5	26,0	27,8					274.0.29,50	G.
	β Ursæ Min. R. M.	89.20	2.17,9	14,0	9,8	11,4	9,8	8,8	3,931	+2.9,18			89.24.20,98	G.
	β Ursæ Minoris...	224.10	4.54,0	46,2	44,6	45,8	45,3	45,5					224.14.46,58	G.
	Σ 1919 M.....	279.5	2.30,9	22,9	21,0	23,6	19,3	20,4	3,223	+2.23,94			279.9.46,81	G.
	(b) Σ 1921.	259.45	1.13,0	6,0	4,8	7,2	2,8	3,8					259.46.6,20	G.
	δ Ursæ Min. R. M.	101.10	2.34,5	28,9	28,0	29,5	26,0	25,1	12,886	-57,61			101.11.30,89	G.
	δ Ursæ Minoris...	212.25	2.47,0	39,7	37,9	42,0	37,3	38,1					212.27.40,15	G.
	α Lyræ R. M.	53.10	4.20,5	15,1	13,8	13,3	12,7	11,3	7,173	+1.1,55			53.15.15,72	G.
	α Lyræ.....	260.20	3.59,4	50,1	51,3	52,0	47,3	49,4					260.23.51,33	G.
	(c) 4 Aquilæ R. M....	16.30	2.26,6	20,2	19,7	20,7	17,0	17,2	10,574	-9,38			16.32.10,70	G.
	4 Aquilæ.....	297.5	1.66,1	59,6	59,5	61,0	55,2	57,2					297.6.59,63	G.
	β Lyræ R. M.	47.45	2.12,5	6,0	4,7	5,9	3,2	2,1	7,729	+49,96			47.47.55,56	G.
	β Lyræ.....	265.50	1.17,0	9,9	9,5	11,0	6,1	7,5					265.51.10,08	G.
	Saturn N.L.....	321.15	0.48,0	41,6	40,1	41,8	37,8	38,2					321.15.41,20	G.
June 10	⊙ S.L. M.....	276.15	2.26,2	24,8	17,9	21,7	20,4	17,8	11,741	-33,74			276.16.47,58	G.
	⊙ N.L.....	275.45	0.18,3	16,9	10,8	16,0	13,8	10,2					275.45.14,32	G.
	Σ 1816.	269.10	1.24,9	18,7	14,8	20,2	14,0	18,6					269.11.18,45	G.
	Σ 1850.	270.0	2.17,0	9,4	7,3	11,1	6,0	9,7					270.2.9,93	G.
	Σ 1866 M.	288.50	1.17,9	10,2	8,6	11,8	6,9	10,5	15,222	-1.46,35			288.49.24,55	G.
	Σ 1867.	267.0	3.54,5	46,3	44,8	47,8	43,2	46,0			+2	+0,38	267.3.47,23	G.
	Σ 1883 M.....	292.25	1.29,9	22,0	19,6	23,6	17,8	20,8	15,697	-1.56,25			292.24.25,93	G.
	Σ 1884.	274.0	0.35,2	27,9	26,0	29,9	24,3	26,9					274.0.28,33	G.
	Σ 1919 M.....	279.5	1.22,9	14,2	12,0	14,9	10,0	12,2	89,914	+3.32,97			279.9.47,25	G.
	Σ 1921.	259.45	1.13,8	5,9	3,7	7,8	2,8	4,1					259.46.6,28	G.
	Σ 1943.	293.5	1.15,6	6,8	6,7	8,0	4,4	4,8					293.6.7,63	G.
	Σ 1953.	292.55	3.54,7	46,2	45,3	46,8	42,7	44,3					292.58.46,42	G.
	δ Serpentis	287.55	2.36,1	27,3	25,8	29,7	25,0	27,0					287.57.28,32	G.
	Capella R. M.	60.25	2.22,8	21,6	13,9	20,8	17,9	17,0	12,085	-40,90			60.26.37,95	G.
	Capella	253.10	2.34,5	28,7	24,4	26,8	25,4	26,1					253.12.27,48	G.

Runs and Coincidence at the middle wire taken June 12, 22 $\frac{1}{2}$ ^h. The coincidence was found to be the same as on June 5.

(a) Very faint.

(b) The right star.

(c) This observation is discordant.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
33,34	13.34.19,07	30,236	57,0	54,1	14,11				51.21.41,46	-6,83	α Lyrae R.
	13.34.19,21								51.21.41,60		α Lyrae.
33,68	50.17.26,24				1.10,27				88.5.44,79	-2,87	δ Aquilae R.
	50.17.27,06								88.5.45,61		δ Aquilae.
33,20	19.1.37,40				20,16				56.49.5,84	-6,12	β Lyrae R.
	19.1.37,25					0,90	9,243	9,19	56.49.5,69		β Lyrae.
	74.25.17,16				3.26,54				112.16.0,27		Saturn.
	29.37.24,11	30,260	70,0	70,6	32,18	4,14			67.9.14,13		\odot .
	29.5.51,56				31,50	4,08		15.46,30	67.9.13,56		\odot .
32,30	36.45.2,34	30,248	68,0	67,0	42,53				74.32.53,15	-10,83	β Leonis R.
	36.45.0,41								74.32.51,22		β Leonis.
33,51	-2.21.31,56				2,35				35.25.34,37	+0,83	γ Ursae Maj. R.
	-2.21.31,09								35.25.34,84		γ Ursae Majoris.
	22.21.45,26	62,8	59,4		23,80				60.9.17,34	-8,34	Σ 1816.
	41.9.27,38				50,54				78.57.26,20	-13,06	Σ 1823.
	59.13.47,03				1.36,85				97.2.32,16	-17,51	Piazzi XIV. 62.
	63.8.9,88				1.53,69				100.57.11,85	-18,41	Piazzi XIV. 70.
	61.40.57,56				1.46,94				99.29.52,78	-17,91	Σ 1847.
	23.12.36,23				24,81				61.0.9,32	-8,63	Σ 1850. <i>sp.</i>
	41.59.50,24				52,17				79.47.50,69	-12,89	Σ 1866.
	20.14.14,75				21,38				58.1.44,41	-8,06	Σ 1867.
	74.25.59,16	30,232	55,0	51,4	3.27,84	0,90	10,916	8,26	112.16.26,12		Saturn.
	22.21.45,36	30,150	60,0	58,8	23,75				60.9.17,39	-8,17	Σ 1816.
	61.40.55,48				1.46,72				99.29.50,48	-17,87	Σ 1847.
	23.12.37,33				24,76				61.0.10,37	-8,45	Σ 1850. <i>sp.</i>
	41.59.49,92			56,7	52,16				79.47.50,36	-12,77	Σ 1866.
	20.14.13,83				21,38				58.1.43,49	-7,85	Σ 1867.
	45.34.54,22				59,11				83.23.1,61	-13,43	Σ 1883.
	27.10.56,23				29,77				64.58.34,28	-9,36	Σ 1884.
33,78	-22.34.47,71				24,11				15.11.56,46	-1,72	β Ursae Min. R.
	-22.34.46,69								15.11.57,48		β Ursae Minoris.
	32.20.13,54		58,8	55,5	36,79				70.7.58,61	-10,21	Σ 1919.
	12.56.32,93				13,36				50.43.54,57	-6,71	Σ 1921.
35,52	-34.21.57,62	30,122	53,8	50,8	40,08				3.24.30,58	-7,33	δ Ursae Min. R.
	-34.21.53,12								3.24.35,08		δ Ursae Minoris.
33,53	13.34.17,55				14,16				51.21.39,99	-6,21	α Lyrae R.
	13.34.18,06								51.21.40,50		α Lyrae.
35,16	50.17.22,57				1.10,48				88.5.41,33	-2,54	δ Aquilae R.
	50.17.26,36								88.5.45,12		δ Aquilae.
32,82	19.1.37,71				20,22				56.49.6,21	-5,54	β Lyrae R.
	19.1.36,81					0,90	9,311	8,48	56.49.5,31		β Lyrae.
	74.26.7,93			50,4	3.27,53				112.16.51,32		Saturn.
	29.27.14,31	30,110	68,0	69,4	31,88	4,12			66.59.4,25		\odot .
	28.55.41,05				31,20	4,05			66.59.2,58		\odot .
	22.21.45,18	30,142	60,0	57,4	23,81				60.9.17,27	-8,00	Σ 1816.
	23.12.36,66				24,82				61.0.9,76	-8,28	Σ 1850.
	41.59.51,28			56,3	52,19				79.47.51,75	-12,65	Σ 1866.
	20.14.13,96				21,39				58.1.43,63	-7,66	Σ 1867.
	45.34.52,66				59,14				83.23.0,08	-13,53	Σ 1883.
	27.10.55,06				29,79				64.58.33,13	-9,18	Σ 1884.
	32.20.13,98		58,7	55,2	36,80				70.7.59,06	-10,05	Σ 1919.
	12.56.33,01				13,36				50.43.54,65	-6,47	Σ 1921.
	46.16.34,36			54,4	1.0,82				84.4.43,46	-12,37	Σ 1943.
	46.9.13,15				1.0,56				83.57.21,99	-12,15	Σ 1953.
	41.7.55,05				50,82				78.55.54,15	-11,25	δ Serpentis.
32,72	6.22.55,32	30,200	68,2	67,5	6,36				44.10.9,96	+4,43	Capella R.
	6.22.54,21								44.10.8,85		Capella.

Coincidence of Micrometer Wire with fixed Wire = 10',114, 10',121, 10',124, 10',128, 10',134 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = + 0'',3. From June 8 = - 2'',0.

Adopted Zenith Point = 246°. 49'. 33'',27.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
June 11	(a) ☉ N.L. M.....	275.40	2.26,0	22,0	17,8	19,8	20,0	16,9	14,553	-1.32,39			275.40.47,88	G.
	☉ S.L.	276.10	2.24,9	19,0	15,0	17,8	17,5	14,8					276.12.18,02	G.
	α Ursæ Maj. R. M.	77.10	2.27,0	21,0	16,8	21,3	18,9	20,3	9,034	+22,74			77.12.43,47	G.
	α Ursæ Majoris...	236.25	1.28,0	22,3	16,5	21,9	21,2	19,8					236.26.21,53	G.
	β Leonis R. M....	30.0	3.27,9	23,1	18,1	22,4	19,6	21,6	6,871	+1.7,85			30.4.29,75	G.
	β Leonis.....	283.30	4.39,1	34,6	30,0	33,9	30,8	31,6					283.34.33,03	G.
	γ Ursæ Maj. R. M.	69.5	4.52,9	48,7	43,8	48,1	45,3	46,1	6,311	+1.19,54			69.11.6,71	G.
	γ Ursæ Majoris...	244.25	2.67,8	62,1	56,8	62,0	59,9	59,3					244.28.1,12	G.
June 13	☉ N.L. M.....	275.30	2.26,6	23,7	17,0	23,0	20,3	20,0	7,990	+44,52			275.33.6,14	G.
	☉ S.L.	276.0	4.39,0	35,9	30,0	34,7	32,4	32,9					276.4.33,85	G.
	(b)) N.L. M.....	289.0	5.16,9	16,8	9,0	13,8	12,5	10,4	9,510	+12,60	-2	+8,36	289.5.33,84	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,297	+17,19	-1	+4,18	289.5.34,25	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,130	+20,73			289.5.33,61	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,942	+24,75	+1	-4,18	289.5.33,45	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,787	+28,10	+2	-8,36	289.5.32,62	G.
	(c) Regulus R. M....	27.15	4.52,2	47,8	41,3	47,1	45,3	46,1	5,187	+1.42,99			27.21.29,31	G.
	Regulus.....	286.15	2.40,6	39,2	31,0	36,7	35,6	32,3					286.17.35,73	G.
	Polaris SP. R. M.	106.5	2.40,6	35,0	29,6	32,8	32,4	31,2	8,930	+24,91			106.7.58,34	G.
	Polaris SP.....	207.30	1.15,5	12,1	6,0	10,2	8,3	7,0					207.31.9,77	G.
	(d) δ Ursæ Min. R. M.	101.10	1.47,0	41,3	38,1	41,3	40,0	38,5	10,508	-8,01		-0,70	101.11.32,21	G.
	δ Ursæ Minoris...	212.25	2.42,3	34,0	32,2	36,6	34,1	34,0				+1,75	212.27.37,12	G.
	Saturn N.L.....	321.15	2.34,0	29,8	24,8	29,0	27,1	26,8					321.17.28,42	G.
	Capella R. M....	60.25	1.26,9	23,2	15,6	24,1	17,9	21,1	9,329	+16,58			60.26.37,95	G.
	Capella.....	253.10	2.33,0	28,0	24,6	26,8	27,3	23,4					253.12.27,02	G.
	(e) ☉ S.L. M.....	276.0	2.36,0	33,7	26,6	31,9	32,0	27,6	13,558	-1.11,63			276.1.19,50	G.
	☉ N.L.	275.25	4.52,0	51,0	44,8	49,0	48,7	45,4					275.29.48,17	G.
	(f)) N.L. M.....	295.20	0.65,8	63,3	57,2	62,5	60,4	57,1	9,556	+11,64	-2	+8,72	295.21.21,34	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,360	+15,87	-1	+4,36	295.21.21,21	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,148	+20,36			295.21.21,34	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,927	+25,05	+1	-4,36	295.21.21,07	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,750	+28,87	+2	-8,72	295.21.21,13	G.
	ζ Bootis.....	284.35	2.23,3	16,0	12,7	16,4	11,8	14,5			-1	+0,04	284.37.15,67	G.
	Σ 1870.....	290.15	1.42,0	34,4	31,0	34,9	32,1	31,9					290.16.34,28	G.
	Σ 1883 M.....	292.25	1.25,7	18,2	15,2	19,3	16,3	16,9	15,410	-1.50,27			292.24.28,25	G.
	Σ 1884.....	274.0	0.34,8	28,0	24,8	29,7	25,5	26,9					274.0.28,25	G.
June 14	(g) β Ursæ Min. R. M.	89.20	3.46,6	40,9	36,4	39,9	38,5	38,4	8,031	+43,66			89.24.23,53	G.
	β Ursæ Minoris...	224.10	4.52,0	45,0	40,9	44,8	43,8	44,2					224.14.44,80	G.
	β Libræ R. M....	5.45	4.63,8	57,7	56,3	57,0	57,3	55,7	8,801	+27,60			5.50.25,23	G.
	β Libræ.....	307.45	3.46,8	40,3	37,4	40,0	38,7	38,3					307.48.40,00	G.
	(h) Σ 1935.....	267.45	0.54,8	49,0	45,3	51,0	46,5	47,1					267.45.48,90	G.
	δ Serpentis.....	287.55	2.36,0	27,8	25,2	31,0	27,1	28,3					287.57.29,07	G.
	Σ 1963.....	268.20	4.50,1	44,7	41,8	44,2	42,0	42,8					268.24.43,95	G.
	ζ Coronæ Borealis	261.50	3.14,2	6,8	5,2	9,8	4,8	5,0					261.53.7,42	G.
	(i) ☉ N.L. M.....	275.25	2.32,2	26,3	22,0	27,1	23,0	24,8	11,340	-25,37			275.27.0,36	G.
	☉ N.L.	275.25	1.65,6	59,4	57,0	61,1	57,3	56,8					275.26.59,40	G.
	α Ursæ Maj. R. M.	77.10	2.28,1	21,8	18,1	21,5	18,9	18,4	8,968	+24,12			77.12.45,10	G.
	α Ursæ Majoris...	236.25	1.29,4	24,0	19,6	24,5	22,3	21,1					236.26.23,38	G.
June 15	(k)) N.L. M.....	301.45	0.69,0	63,5	60,6	63,0	60,0	58,3	9,669	+9,27	-2	+8,68	301.46.20,28	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,459	+13,81	-1	+4,34	301.46.20,48	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,170	+19,89			301.46.22,22	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,991	+23,73	+1	-4,34	301.46.21,72	G.
	) N.L. M.....	...	...	...	...	...	...	...	8,798	+27,88	+2	-8,68	301.46.21,53	G.
	β Leonis R. M....	30.0	2.40,1	34,8	31,0	34,8	32,0	32,1	4,468	+1.58,20			30.4.32,17	G.
	β Leonis.....	283.30	4.39,3	35,3	31,9	34,5	31,9	31,6					283.34.33,78	G.
	(k) β Virginis.....	296.20	2.22,6	16,4	14,0	14,4	13,6	11,4					296.22.15,25	G.
	(l) ζ Bootis.....	284.35	2.25,1	19,5	16,0	18,4	15,5	16,8					284.37.18,40	G.
	Σ 1870.....	290.15	1.40,5	34,4	31,0	34,2	31,2	30,6					290.16.33,55	G.
	Σ 1879.....	288.40	2.17,1	11,1	8,8	10,9	7,7	6,6					288.42.10,22	G.

June 13, 21^h. Molyneux fast on Hardy, 57^s.3.

(a) Badly defined. (b) Too faint to be satisfactory.
 18^h.26^m.0^s and 18^h.27^m.25^s. (c) Very badly defined.
 (i) N.L. taken a second time by mistake.
 well accord with those of June 14 and 16.

(c) Very unsteady.
 (f) Hazy and faint.
 (k) Very faint.

(d) Times by Molyneux,
 (g) Good. (h) Exces-
 (l) This observation does not

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,50	28.51.14,61	30,204	68,2	67,6	31,31	4,04		15.46,00	66.54.36,16		⊙.
	29.22.44,75				31,99	4,11			66.54.34,91		⊙.
	-10.23.10,20	30,200	72,6	72,1	10,33				27.23.47,75	+3,77	α Ursæ Maj. R.
	-10.23.11,74								27.23.46,21		α Ursæ Majoris.
31,39	36.45.3,52		70,6	69,1	42,29				74.32.54,09	-10,65	β Leonis R.
	36.44.59,76								74.32.50,33		β Leonis.
33,92	-2.21.33,44				2,34				35.25.32,50	+0,96	γ Ursæ Maj. R.
	-2.21.32,15								35.25.33,79		γ Ursæ Majoris.
32,52	28.43.32,87	30,250	67,8	67,9	31,17	4,03		15.45,80	66.46.54,09		⊙.
	29.15.0,58				31,85	4,09			66.46.50,82		⊙.
	42.16.0,57	30,186	69,9	71,7					79.40.23,01		⋄.
	42.16.0,98								79.40.23,42		⋄.
34,06	42.16.0,34				51,17	39.51,05		16.14,04	79.40.22,78		⋄.
	42.16.0,18								79.40.22,62		⋄.
	42.15.59,35								79.40.21,79		⋄.
	39.28.3,96				46,36				77.15.58,60	-8,51	Regulus R.
34,66	39.28.2,46								77.15.57,10		Regulus.
	-39.18.25,07	30,150	68,5	66,8	46,49				-1.32.3,28	-3,32	Polaris SP. R.
32,49	-39.18.23,50								-1.32.1,71		Polaris SP.
	-34.21.58,94	30,110	62,0	59,8	39,34				3.24.30,00	-6,03	δ Ursæ Min. R.
32,49	-34.21.56,15								3.24.32,79		δ Ursæ Minoris.
	74.27.55,15				3.23,88	0,91	9,345	8,13	112.18.34,53		Saturn.
	6.22.55,32	30,072	72,4	74,0	6,25				44.10.9,85	+4,07	Capella R.
	6.22.53,75								44.10.8,28		Capella.
34,17	29.11.46,23	30,066	72,4	74,6	31,18	4,09		15.45,80	66.43.35,80		⊙.
	28.40.14,90				30,51	4,02			66.43.35,47		⊙.
	48.31.48,07	29,994	70,0	71,3					85.51.53,61		⋄.
	48.31.47,94								85.51.53,48		⋄.
32,62	48.31.48,07				1.3,31	44.16,95		16.10,90	85.51.53,61		⋄.
	48.31.48,40								85.51.53,94		⋄.
	48.31.47,86								85.51.53,40		⋄.
	37.47.42,40	30,000	66,7	64,2	44,05				75.35.34,73	-11,09	ζ Bootis.
34,24	43.27.1,01				53,79				81.15.3,08	-12,50	Σ 1870.
	45.34.54,98				57,93				83.23.1,19	-12,88	Σ 1883.
	27.10.54,98				29,18				64.58.32,44	-8,48	Σ 1884.
	-22.34.50,26				23,64				15.11.54,38	-0,62	β Ursæ Min. R.
32,98	-22.34.48,47								15.11.56,17		β Ursæ Minoris.
	60.59.8,04			62,0	1.42,53				98.47.58,85	-15,41	β Libræ R.
	60.59.6,73				21,84				98.47.57,54	-7,02	β Libræ.
	20.56.15,63	29,996	64,0	61,6	49,85				58.43.45,75	-10,63	δ Serpentis.
32,98	41.7.55,80				22,60				78.55.53,93	-7,05	Σ 1963.
	21.35.10,68				15,37				59.22.41,56	-6,00	ζ Coronæ Bor.
	15.3.34,15								52.50.57,80		
	28.37.27,09	30,036	63,7	61,1	31,24	4,01		15.45,70	66.40.48,30		⊙.
34,24	28.87.26,13				31,24	4,01			66.40.47,34		⊙.
	-10.23.11,83	30,000	65,0	64,6	10,41				27.23.46,04	+3,53	α Ursæ Maj. R.
	-10.23.9,89				64,2				27.23.47,98		α Ursæ Majoris.
32,98	54.56.47,01								92.13.11,84		⋄.
	54.56.47,21								92.13.12,04		⋄.
	54.56.48,95				1.20,81	48.10,40		16.6,14	92.13.13,78		⋄.
	54.56.48,45								92.13.13,28		⋄.
32,98	54.56.48,26								92.13.13,09		⋄.
	36.45.1,10				42,42				74.32.51,80	-10,41	β Leonis R.
	36.45.0,51								74.32.51,21	-14,85	β Leonis.
	49.32.41,98	29,984	62,2	59,4	1.6,55				87.20.56,81	-10,96	β Virginis.
32,98	37.47.45,13				44,46				75.35.37,87	-12,37	ζ Bootis.
	43.27.0,28				54,28				81.15.2,84	-11,91	Σ 1870.
	41.52.36,95				51,38				79.40.36,61		Σ 1879.

Coincidence of Micrometer Wire with fixed Wire = 10',114, 10',121, 10',124, 10',128, 10',134 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = -2'',0.

Adopted Zenith Point = 246°.49'.33'',27.

Assumed Co-latitude = 37°.47'.8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
June 15	Σ 1919 M.....	279. 5	2.48,0	41,8	39,0	42,0	38,9	38,1	4,120	+2. 5,23			279. 9.46,36	G.
	Σ 1921. np.	259.45	1.12,1	6,1	3,7	7,1	3,8	3,2					259.46. 5,93	G.
	α Lyræ R. M.	53.10	3.47,4	43,1	39,7	43,2	40,8	40,6	5,561	+1.35,18			53.15.17,40	G.
	α Lyræ	260.20	3.56,6	48,8	48,7	50,3	47,2	46,3					260.23.49,40	G.
	β Lyræ R. M.	47.45	2.24,1	17,3	15,1	18,3	14,1	14,7	8,138	+41,43			47.47.58,55	G.
	β Lyræ	265.50	1.15,0	9,3	7,8	9,9	5,8	5,0					265.51. 8,72	G.
	Saturn N.L.	321.15	3.26,0	19,3	18,0	19,4	16,3	17,0					321.18.19,12	G.
	(a) Jupiter N.L.	321. 0	1.65,5	59,3	58,8	58,8	58,3	55,1					321. 1.59,17	G.
June 16	β Virginis	296.20	2.22,2	17,1	13,6	16,1	14,1	12,8					296.22.15,83	G.
	γ N.L. M.	307.55	4.10,0	6,0	2,9	5,1	2,3	1,8	9,925	+3,95	-2	+8,28	307.59.16,65	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,746	+7,82	-1	+4,14	307.59.16,38	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,537	+12,25			307.59.16,67	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,328	+16,69	+1	-4,14	307.59.16,97	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,137	+20,80	+2	-8,28	307.59.16,94	G.
	ζ Bootis	284.35	2.22,3	15,8	13,8	15,8	12,0	13,3					284.37.15,35	G.
	Σ 1879.	288.40	2.17,9	9,3	10,2	10,9	8,0	6,9					288.42.10,38	G.
	β Ursæ Min. R. M.	89.20	3.32,8	27,0	23,8	26,6	23,9	23,2	7,434	+56,12			89.24.22,10	G.
	β Ursæ Minoris...	224.10	4.52,6	44,9	42,8	45,3	43,4	44,0					224.14.45,18	G.
	β Libræ R. M.	5.45	4.52,8	48,1	46,9	47,5	46,8	44,8	8,294	+38,18			5.50.25,68	G.
	β Libræ	307.45	3.45,8	38,2	36,8	39,0	36,1	37,0					307.48.38,58	G.
	5 Serpentis	296.35	4.32,8	26,0	24,1	25,8	22,5	23,4					296.39.25,47	G.
	(b) Σ 1935.	267.45	0.58,2	52,1	50,3	54,0	48,9	48,9					267.45.52,02	G.
	Σ 1942.	277. 0	0.59,0	52,8	50,9	53,9	49,9	50,2					277. 0.52,73	G.
	Σ 1952.	288.45	4.41,9	34,5	33,0	34,7	31,7	32,4					288.49.34,40	G.
	Σ 1963.	268.20	4.50,9	44,9	43,0	44,2	41,1	42,5					268.24.44,12	G.
	ζ Coronæ Borealis.	261.50	3.14,0	7,0	6,0	8,8	3,3	4,2					261.53. 7,02	G.
	(c) Jupiter S.L.	321. 0	3.56,7	51,0	49,9	50,1	47,9	48,2					321. 3.50,38	G.
June 18	(d) Saturn S.L.	321.15	4.61,0	56,0	53,8	56,9	55,6	52,7					321.19.56,00	G.
	Jupiter S.L.	321. 5	0.67,0	61,9	60,0	62,2	61,1	57,8					321. 6. 1,58	G.
June 20	γ N.L. M.	324.30	3.43,9	37,0	35,9	38,6	37,8	35,2	9,851	+5,48	-2	+2,40	324.33.45,66	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,844	+5,78	-1	+1,20	324.33.44,76	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,777	+7,24			324.33.45,02	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,723	+8,44	+1	-1,20	324.33.45,02	G.
	γ N.L. M. ....	...	...	...	...	...	...	...	9,664	+9,80	+2	-2,40	324.33.45,18	G.
	ε Ursæ Min. R. M.	96.50	3.33,9	27,0	26,0	29,8	27,3	26,9	10,550	-8,89			96.53.19,33	G.
	ε Ursæ Minoris...	216.45	0.54,5	46,3	45,4	49,8	45,3	46,1					216.45.47,83	G.
	Σ 2147.	269.55	1.57,0	51,1	48,3	51,9	48,0	48,2					269.56.50,60	G.
	Piazzi XVII. 94.	283.15	1.36,0	29,0	26,8	29,8	27,1	26,1					283.16.29,02	G.
	α Lyræ R. M.	53.10	3.32,8	29,0	25,0	28,9	26,4	26,8	4,843	+1.50,16			53.15.18,04	G.
	α Lyræ	260.20	3.54,6	46,2	46,9	48,4	45,9	46,8					260.23.47,83	G.
	β Lyræ R. M.	47.45	2.17,1	11,6	8,8	13,1	8,0	9,2	7,873	+46,95			47.47.58,08	G.
	β Lyræ	265.50	1.13,1	5,7	5,8	8,7	4,5	4,7					265.51. 7,00	G.
	Saturn S.L.	321.20	0.57,6	53,1	50,1	53,0	51,0	49,4					321.20.52,30	G.
June 21	Jupiter S.L.	321. 5	3.27,2	20,9	19,3	21,3	19,3	19,8					321. 8.21,05	G.
	Σ 1977.	273. 5	0.25,0	19,8	17,1	20,0	17,0	16,7					273. 5.19,25	G.
	ζ Ursæ Min. R. M.	92.50	2.20,7	16,0	12,1	17,9	12,8	14,1	8,350	+37,00			92.52.52,43	G.
	ζ Ursæ Minoris...	220.45	1.21,1	15,1	12,9	17,4	13,8	13,6					220.46.15,55	G.
	η Draconis R. M.	76.25	2.33,0	30,0	25,1	30,2	27,3	26,4	5,991	+1.26,22			76.28.54,70	G.
	η Draconis	237.10	0.18,7	12,8	9,2	13,3	10,9	12,4					237.10.12,87	G.
	ζ Herculis M.	267. 5	1.30,6	25,2	23,0	26,1	23,0	23,9	3,970	+2. 8,36			267. 8.33,54	G.
	Σ 2087.	275. 0	3.49,3	42,7	42,1	44,2	42,4	43,0					275. 3.43,67	G.
	η Ophiuchi	314.30	1.42,9	37,7	34,4	37,0	37,0	35,0					314.31.37,22	G.
	(e) γ S.L. M.	325.50	3.52,7	47,9	46,9	48,0	48,4	46,2	9,111	+20,92	-2	+0,06	325.54. 9,05	G.
	γ S.L. M. ....	...	...	...	...	...	...	...	9,123	+20,82	-1	+0,03	325.54. 8,92	G.
	γ S.L. M. ....	...	...	...	...	...	...	...	9,157	+20,17			325.54. 8,24	G.
	γ S.L. M. ....	...	...	...	...	...	...	...	9,162	+20,15	+1	-0,03	325.54. 8,19	G.
	γ S.L. M. ....	...	...	...	...	...	...	...	9,142	+20,69	+2	-0,06	325.54. 8,70	G.

Runs taken June 21, 13^h.

(a) Cloudy.

(b) Very faint.

(c) The shutters were opened just before this observation, after being closed for two hours.

(d) No correction for Runs.

(e) Uneven and unsteady.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,40	32.20.13,09	29,984	62,2	58,7	36,35				70.7.57,72	-9,18	Σ 1919.
	12.56.32,66				13,20				50.43.54,14	-5,35	Σ 1921. <i>np.</i>
	13.34.15,87	29,966	58,0	56,3	13,93				51.21.38,08	-4,35	α Lyrae R.
	13.34.16,13								51.21.38,34		α Lyrae.
33,63	19.1.34,72				19,89				56.49.2,89	-3,75	β Lyrae R.
	19.1.35,45								56.49.3,62		β Lyrae.
	74.28.45,85	29,962	57,8	55,7	3.24,78	0,91	9,288	8,73	112.19.26,73		Saturn.
	74.12.25,90			54,2	3.21,80	1,94	8,038	21,76	112.3.15,80		Jupiter.
33,64	49.32.42,56	29,956	65,5	64,5	1.6,41				87.20.57,25	-14,78	β Virginis.
	61.9.43,38			63,3					98.23.19,11)).
	61.9.43,11								98.23.18,84)).
	61.9.43,40				1.42,85	51.15,74		16.0,34	98.23.19,13)).
	61.9.43,70								98.23.19,43)).
	61.9.43,67								98.23.19,40)).
	37.47.42,08	30,000	61,3	59,5	44,47				75.35.34,83	-10,83	ζ Bootis.
	41.52.37,11				51,39				79.40.36,78	-11,78	Σ 1879.
	-22.34.48,83				23,86				15.11.55,59	-0,20	β Ursae Min. R.
	-22.34.48,09								15.11.56,33		β Ursae Minoris.
	60.59.7,59			59,0	1.43,15				98.47.59,02	-15,31	β Librae R.
	60.59.5,31								98.47.56,74		β Librae.
	49.49.52,20				1.7,93				87.38.8,41	-12,71	5 Serpentis.
	20.56.18,75				21,98				58.43.49,01	-6,62	Σ 1935.
	30.11.19,46				33,40				67.59.1,14	-8,36	Σ 1942.
	42.0.1,13				51,67				79.48.1,08	-10,60	Σ 1952.
32,13	21.35.10,85				22,72				59.22.41,85	-6,63	Σ 1963.
	15.3.33,75				15,46				52.50.57,49	-5,53	ζ Coronae Bor.
	74.14.17,11	30,016	60,4	60,0	3.20,17	1,95	12,351	23,23	112.4.20,38		Jupiter.
	74.30.22,73	29,800	58,0	56,5	3.23,70	0,91	10,955	8,67	112.20.45,13		Saturn.
	74.16.28,31	29,780	57,0	55,3	3.21,01	1,95	12,208	21,74	112.6.33,91		Jupiter.
	77.44.12,39	29,658	61,4	60,0					114.55.39,94)).
	77.44.11,49								114.55.39,04)).
	77.44.11,75				4.14,40	55.24,63		15.29,50	114.55.39,30)).
	77.44.11,75								114.55.39,30)).
	77.44.11,91								114.55.39,46)).
	-30.3.46,06	29,648	60,2	58,5	32,88				7.42.49,34	-2,09	ε Ursae Min. R.
	-30.3.45,44								7.42.49,96	-4,35	ε Ursae Minoris.
	23.7.17,33				24,26				60.54.49,87	-4,99	Σ 2147.
	36.26.55,75				41,94				74.14.45,97		Piazzini XVII. 94.
	13.34.15,23	29,634	58,3	57,0	13,75				51.21.37,26	-2,80	α Lyrae R.
	13.34.14,56								51.21.36,59		α Lyrae.
32,94	19.1.35,19				19,64				56.49.3,11	-2,25	β Lyrae R.
	19.1.33,73								56.49.1,65		β Lyrae.
	74.31.19,03				3.22,56	0,91	10,904	8,14	112.21.40,82		Saturn.
	74.18.47,78	29,624	58,3	55,8	3.20,25	1,96	12,292	22,62	112.8.51,73		Jupiter.
33,58	26.15.45,98	29,610	61,5	59,0	27,97				64.3.22,23	-6,27	Σ 1977.
	-26.3.19,16				27,71				11.43.21,41	-0,22	ζ Ursae Min. R.
	-26.3.17,72								11.43.22,85		ζ Ursae Minoris.
	-9.39.21,43			58,2	9,66				28.7.37,19	-1,81	η Draconis R.
33,79	-9.39.20,40								28.7.38,22	-4,54	η Draconis.
	20.19.0,27				21,02				58.6.29,57	-5,42	ζ Herculis.
	28.14.10,40				30,48				66.1.49,16	-8,27	Σ 2087.
	67.42.3,95		59,4	57,6	2.17,64				105.31.29,87		η Ophiuchi.
	79.4.35,78								115.45.59,59)).
	79.4.35,65								115.45.59,46)).
	79.4.34,97				4.45,74	55.9,53		15.20,68	115.45.58,78)).
	79.4.34,92								115.45.58,73)).
	79.4.35,43								115.45.59,24)).

Coincidence of Micrometer Wire with fixed Wire = 10', 114, 10', 121, 10', 124, 10', 128, 10', 134 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = -2'', 0. From June 18 = -2'', 3.

Adopted Zenith Point = 246°. 49'. 33'', 27.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. ° ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. ° ' "	Observer.
			A	B	C	D	E	F						
June 21	β Lyræ R. M.	47.45	2.27,7	22,9	19,5	23,8	20,8	22,3	8,437	+ 35,20			47.47.57,85	G.
	β Lyræ	265.50	1.12,7	6,3	5,3	8,9	4,3	5,0					265.51.7,00	G.
	Saturn N.L.	321.20	0.66,8	61,9	60,0	62,8	60,3	59,1					321.21.1,73	G.
	Jupiter N.L.	321.5	3.51,0	45,6	43,2	44,8	44,3	43,0					321.8.45,03	G.
June 22	ζ Herculis	267.5	3.34,1	34,8	35,0	32,1	34,8	34,8					267.8.34,00	G.
June 23	\odot N.L. M.	275.15	3.32,0	37,0	35,7	32,7	34,9	35,2	8,570	+ 32,50			275.19.6,82	G.
	\odot S.L.	275.50	0.34,3	40,0	36,1	36,1	36,0	35,3					275.50.36,25	G.
June 24	(a) Saturn S.L.	321.20	2.41,3	45,5	43,3	39,3	41,4	43,2					321.22.42,13	G.
June 25	Σ 2147.	269.55	1.49,7	53,4	51,5	48,9	49,4	51,0	8,901	+ 25,60			269.56.50,52	G.
	* R. 17 ^h . 11 ^m . 45 ^s M.	269.55	1.49,7	53,4	51,5	48,9	49,4	51,0					269.57.16,12	G.
	Piazzi XVII. 94. ..	283.15	1.29,3	32,2	29,2	26,5	28,8	29,1					283.16.29,07	G.
June 27	Σ 1963.	268.20	4.39,8	44,4	42,8	38,7	40,4	42,1	13,330	- 1. 6,79			268.24.41,02	G.
	ζ Coronæ Borealis.	261.50	3.2,4	7,9	4,4	2,4	3,3	2,8					261.53.3,63	G.
	Σ 1977.	273.5	0.17,3	22,4	19,3	16,8	17,1	18,0					273.5.18,47	G.
	95 Herculis. sp.	277.25	0.47,0	50,2	49,2	45,0	46,3	46,6					277.25.47,32	G.
	Piazzi XVII. 362.	287.0	1.52,0	56,0	54,7	51,2	52,1	53,7					287.1.53,13	G.
	δ Ursæ Min. R. M.	101.10	2.42,1	43,8	45,1	40,6	43,2	43,7					101.11.36,09	G.
	δ Ursæ Minoris.	212.25	2.33,8	37,0	33,8	31,6	34,0	35,2					212.27.34,03	G.
	α Lyræ R. M.	53.10	2.37,3	42,9	38,3	36,4	38,1	39,6					53.15.21,29	G.
	α Lyræ	260.20	3.44,8	47,9	47,7	42,3	44,3	46,2					260.23.45,25	G.
	β Lyræ R. M.	47.45	3.25,1	29,6	26,0	22,9	24,7	27,3					47.48.2,07	G.
	β Lyræ	265.50	1.4,0	8,5	7,2	3,3	3,9	5,1					265.51.5,25	G.
	Saturn N. L.	321.20	3.38,8	43,9	40,4	36,3	39,0	41,4					321.23.39,68	G.
	ζ Aquilæ R. M. ...	28.10	4.33,8	38,7	36,4	33,3	35,4	38,3					28.15.29,27	G.
	ζ Aquilæ	285.20	3.35,9	39,3	37,8	34,7	36,3	38,7					285.23.36,83	G.
	Jupiter N.L.	321.15	0.40,3	43,1	41,6	37,6	40,2	41,3					321.15.40,63	G.
June 28	η Ursæ Maj. R. M.	64.40	2.30,0	32,6	28,6	28,6	30,3	32,8	8,966	+ 24,24			64.42.54,52	G.
	η Ursæ Majoris ...	248.55	1.6,3	9,8	9,2	5,2	9,9	5,9					248.56.7,63	G.
	η Bootis R. M. ...	33.45	1.47,0	51,8	47,5	47,3	49,3	49,9	4,712	+ 1.52,98			33.48.41,65	G.
	η Bootis	279.50	0.22,1	26,4	23,7	20,8	24,7	22,6					279.50.23,35	G.
	Arcturus R. M.	34.35	1.38,4	42,3	37,3	37,4	38,8	40,3	7,420	+ 56,49			34.37.35,44	G.
	Arcturus	279.0	1.28,9	31,2	28,9	26,7	29,3	27,9					279.1.28,70	G.
	5 Serpentis	296.35	4.24,8	29,0	26,0	23,0	26,1	26,7	12,169	- 42,57			296.39.25,60	G.
	Σ 1952.	288.45	4.32,9	37,0	35,2	30,9	35,0	34,4					288.49.33,88	G.
	β Serpentis	283.5	1.33,7	37,2	34,7	31,8	34,4	35,1					283.6.34,37	G.
	(b) Σ 1977.	273.5	0.17,5	21,1	18,6	15,9	16,8	17,1					273.5.17,82	G.
	Saturn S.L.	321.20	4.28,0	31,5	29,9	26,1	30,2	31,1					321.24.29,12	G.
	Jupiter S.L.	321.15	2.40,7	44,4	42,2	38,3	42,0	42,2					321.17.41,43	G.
	Piazzi XV. 220. ...	295.5	4.28,1	31,9	29,2	26,4	29,1	30,0	4,867	+ 1.49,74			295.9.28,77	G.
	Σ 2007.	285.15	1.29,8	34,0	30,3	28,4	30,0	31,3					285.16.30,52	G.
	Σ 2011.	269.35	1.46,9	52,1	47,7	45,8	47,4	48,7					269.36.47,97	G.
	Σ 2017.	284.0	4.5,0	9,8	6,8	3,9	5,0	6,2					284.4.5,80	G.
	δ Ursæ Min. R. M.	101.10	2.18,9	21,3	20,9	17,2	19,0	19,8					101.11.36,76	G.
	δ Ursæ Minoris.	212.25	2.31,8	36,0	32,8	29,0	33,5	33,0					212.27.32,48	G.
	α Lyræ R. M.	53.10	3.31,4	36,9	32,5	30,1	31,1	34,3					53.15.22,19	G.
	α Lyræ	260.20	3.45,0	48,6	48,1	42,0	44,9	45,0					260.23.45,32	G.
June 29	β Lyræ R. M.	47.45	3.41,9	46,0	43,3	39,3	41,4	44,5	12,060	- 40,30			47.48.2,15	G.
	β Lyræ	265.50	1.3,5	8,5	7,0	2,7	4,1	2,8					265.51.4,68	G.
	Saturn N.L.	321.20	4.35,9	41,1	38,1	34,7	36,7	38,1	11,895	- 36,73			321.24.37,08	G.
	Jupiter N.L.	321.15	3.3,8	6,8	5,2	1,2	2,3	3,8					321.18.3,62	G.
	\gg N.L. M.	284.55	2.14,0	17,0	17,4	11,4	14,2	14,2					284.56.45,74	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...					284.56.45,17	G.
July 1	\gg N.L. M. ....	...	...	...	...	...	...	...	11,370	- 26,05	-1	- 3,31	284.56.45,53	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	11,514	- 29,00			284.56.44,82	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	11,711	- 33,02	+1	+ 3,31	284.56.44,82	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	11,895	- 36,73	+2	+ 6,62	284.56.44,42	G.

On June 22 the Circle was taken from the wall and its axis cleaned. It was then replaced nearly in the meridian, the microscopes were adjusted, and an equatorial star was observed to move accurately along the fixed wire. Coincidence at middle wire taken July 7, 2^h.

(a) Cloudy and doubtful.

(b) Very faint.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,43	19. 1. 35,42	29,626	59,0	56,7	19,65	0,91	9,344	8,14	56. 49. 3,35	- 1,95	β Lyræ R. β Lyræ. Saturn. Jupiter.
	19. 1. 33,73								56. 49. 1,66		
	74. 31. 28,46								112. 22. 6,64		
	74. 19. 11,76	29,698	57,8	54,6	21,24	1,96	7,968	22,49	112. 10. 0,85	- 4,28	ζ Herculis.
	20. 19. 1,01	29,784	62,8	62,9	30,70	4,00	15. 45,20	15,45,20	66. 32. 54,01	-	\odot . \odot .
	28. 29. 33,83	31,38	4,06	66. 32. 53,66							
	29. 1. 3,26	29,680	57,3	55,2	3. 24,04	0,91			11,026			9,37	112. 23. 31,18	Saturn.
	74. 33. 9,14	29,528	59,0	57,9	24,19	0,91	11,026	9,37	60. 54. 50,00	- 3,08	Σ 2147.
	23. 7. 17,53	24,20	60. 55. 15,61	- 3,08	* R. 17 ^h . 11 ^m . 45 ^s .						
	23. 7. 43,13	41,82	74. 14. 46,18	- 3,95	Piazzi XVII. 94.						
36. 26. 56,08	30,224	60,0	58,9	22,90	0,91	9,315	8,48	59. 22. 39,21	- 4,39	Σ 1963.	
21. 35. 8,03	15,57	52. 50. 54,49	- 3,13	ζ Coronæ Bor.							
15. 3. 30,64	28,55	64. 3. 22,31	- 5,12	Σ 1977.							
26. 15. 45,48	30,228	57,3	54,1	34,56	1,98	7,908	23,16	68. 23. 57,17	- 1,67	95 Herculis. <i>sp.</i>	
30. 36. 14,33	49,36	78. 0. 17,78	- 1,81	Piazzi XVII. 362.							
40. 12. 20,14	56,4	53,6	39,99	3. 24. 25,19				- 1,33	δ Ursæ Min. R.		
- 34. 22. 3,10	30,116	67,4	67,2	2,09	0,91	9,315	8,48	3. 24. 29,33	- 0,63	α Lyræ R. α Lyræ.	
- 34. 21. 58,96								51. 21. 34,10			
13. 34. 11,70								51. 21. 34,66			
13. 34. 12,26	20,17	56. 48. 59,37	- 0,15	β Lyræ R. β Lyræ.							
19. 1. 30,92	3. 28,70	56. 49. 0,71									
19. 1. 32,26	46,62	112. 24. 51,24									
74. 34. 6,69	54,3	3. 26,59	1,98	7,908	23,16	112. 17. 3,69	+ 1,28	ζ Aquilæ R. ζ Aquilæ.			
- 38. 34. 3,72	30,056	61,8	60,0	3. 24,99	0,91	10,979	8,88	76. 21. 58,62	-	η Ursæ Maj. R. η Ursæ Majoris.	
- 38. 34. 3,84								46,62			76. 21. 58,74
74. 26. 7,64								54,3			3. 26,59	1,98	7,908	23,16	112. 17. 3,69
74. 26. 7,64	30,050	61,0	59,5	3. 23,64	1,98	12,305	22,71	112. 18. 15,67	- 0,64	η Ursæ Majoris.	
2. 6. 38,47	29,986	64,8	62,7	1. 3,93	0,91	10,979	8,88	39. 53. 48,84	- 8,73	η Bootis R. η Bootis.	
2. 6. 34,64	45,21	70. 48. 36,46									
33. 0. 51,34	23,94	70. 48. 35,48									
33. 0. 50,36	43,29	69. 59. 41,53	- 9,17	Arcturus R. Arcturus.							
32. 11. 57,55	1. 7,45	69. 59. 39,69									
32. 11. 55,71	51,31	87. 38. 8,34									
49. 49. 52,61	30,102	65,0	64,2	51,31	0,91	10,979	8,88	79. 48. 0,48	- 11,52	5 Serpensis.	
42. 0. 0,89	28,13	74. 4. 51,51	- 9,00	Σ 1952.							
36. 17. 1,38	26. 15. 44,83	64. 3. 21,24	- 7,17	β Serpensis.							
26. 15. 44,83	30,056	61,8	60,0	3. 24,99	0,91	10,979	8,88	64. 3. 21,24	- 4,93	Σ 1977.	
74. 34. 56,13	30,050	61,0	59,5	3. 23,64				112. 25. 19,61	Saturn.		
74. 28. 8,44	29,986	64,8	62,7	1. 3,93				112. 18. 15,67	Jupiter.		
48. 19. 55,78	29,972	59,0	56,0	39,46	0,91	9,340	8,22	86. 8. 7,99	- 9,31	Piazzi XV. 220.	
38. 26. 57,53								76. 14. 51,02	- 6,77	Σ 2007.	
22. 47. 14,98								60. 34. 47,20	- 3,69	Σ 2011.	
37. 14. 32,81	75. 2. 24,38	- 6,30	Σ 2017.								
- 34. 22. 3,77	3. 24. 25,05	- 0,73	δ Ursæ Min. R.								
- 34. 22. 0,51	3. 24. 28,31		δ Ursæ Minoris.								
13. 34. 10,80	51. 21. 33,02		- 0,01	α Lyræ R.							
13. 34. 12,33	51. 21. 34,55	+ 0,45	α Lyræ.								
19. 1. 30,84	56. 48. 59,03		β Lyræ R.								
19. 1. 31,69	56. 48. 59,88		β Lyræ.								
74. 35. 4,09	112. 25. 45,81	-	Saturn.								
74. 28. 30,63	112. 19. 24,76		Jupiter.								
38. 7. 12,75	75. 36. 12,17		δ .								
38. 7. 12,18	75. 36. 11,60	δ .									
38. 7. 12,54	75. 36. 11,96	δ .									
38. 7. 11,83	75. 36. 11,25	δ .									
38. 7. 11,43	75. 36. 10,85	δ .									

Coincidence of Micrometer Wire with fixed Wire = 10', 114, 10', 121, 10', 124, 10', 128, 10', 134 at the five wires. From June 22 = 10', 118, 10', 125, 10', 128, 10', 132, 10', 138.

One Micrometer Revolution = 20", 859.

Correction for Runs = - 2", 3.

Adopted Zenith Point = 246°. 49'. 33". 27. From June 22 = 246°. 49'. 32". 99.

Assumed Co-latitude = 37°. 47'. 8". 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			° ' "	° ' "	° ' "	° ' "	° ' "	° ' "					° ' "	
July 1	β Arietis.....	278.55	4.39,0	40,5	42,9	35,0	38,8	38,4					278.59.38,75	G.
July 2	α Lyrae R. M.	53.10	4.15,3	17,1	18,0	12,7	17,0	17,1	6,943	+1.6,44			53.15.22,31	G.
	α Lyrae	260.20	3.45,2	44,8	47,6	40,4	44,4	44,8					260.23.44,25	G.
	Saturn S.L.	321.25	1.14,4	17,8	16,0	12,8	14,1	15,9					321.26.15,07	G.
	Jupiter S.L.	321.20	2.24,0	27,3	26,2	21,3	24,4	25,4					321.22.24,58	G.
July 5	(a) 5 Serpentis	296.35	4.23,8	25,9	27,5	22,0	23,8	25,1					296.39.24,35	G.
July 6	ζ Herculis M.	267.5	2.17,8	20,3	21,1	16,0	17,5	18,0	6,736	+1.10,76	+1	+0,09	267.8.29,30	G.
	Σ 2087.	275.0	3.39,9	42,3	42,8	37,0	41,5	40,8					275.3.40,72	G.
	ϵ Ursae Min. R. M.	96.50	3.25,4	29,2	29,0	23,7	28,1	28,0	10,300	-3,59			96.53.23,64	G.
	ϵ Ursae Minoris...	216.45	0.44,0	45,3	45,4	41,0	43,5	43,3					216.45.43,75	G.
	α Herculis R. M.	29.10	0.50,0	53,8	53,0	48,1	50,8	50,5	7,091	+1.3,36			29.11.54,39	G.
	α Herculis	284.25	2.6,9	10,3	10,5	3,7	7,3	7,7					284.27.7,73	G.
	Σ 2147.	269.55	1.45,8	48,4	49,0	42,9	46,5	46,8					269.56.46,57	G.
	*R.17 ^h .11 ^m .45 ^s M.	269.55	1.45,8	48,4	49,0	42,9	46,5	46,8	8,923	+25,13			269.57.11,70	G.
	Piazzi XVII. 94..	283.15	1.25,0	24,4	25,0	19,4	24,3	23,4					283.16.23,58	G.
	95 Herculis	277.25	0.44,7	44,9	47,3	41,3	44,4	44,0					277.25.44,43	G.
	Piazzi XVII. 362..	287.0	1.49,7	51,3	52,9	47,0	49,8	50,2					287.1.50,15	G.
	(b) δ Ursae Min. R. M.	101.10	2.26,3	28,4	30,0	23,0	29,8	27,4	12,226	-43,77			101.11.43,71	G.
	δ Ursae Minoris...	212.25	2.31,8	31,4	31,8	27,1	30,4	31,8					212.27.30,72	G.
	α Lyrae R. M.	53.10	3.25,4	28,0	27,3	22,6	26,4	27,1	4,503	+1.57,34			53.15.23,47	G.
	α Lyrae	260.20	3.43,8	44,1	46,2	39,0	42,3	43,6					260.23.43,17	G.
	β Lyrae R. M.	47.45	3.20,8	22,4	22,5	15,8	20,2	21,0	10,911	-16,33			47.48.4,12	G.
	β Lyrae	265.50	0.62,1	63,3	66,0	58,7	61,2	61,9					265.51.2,20	G.
	(c) Saturn S.L.	321.25	2.57,5	59,4	60,1	52,3	57,0	58,1					321.27.57,40	G.
	(d) Jupiter S.L.	321.25	1.61,3	64,2	63,8	57,1	61,8	61,8					321.27.1,67	G.
July 9	\odot S.L.	276.50	3.26,0	27,5	26,6	22,4	25,6	23,0					276.53.24,57	C.
July 11	(e) Saturn N.L.	321.25	4.57,9	60,6	60,3	56,8	61,9	58,8					321.29.59,38	C.
July 12	\odot N.L. M.	276.40	3.24,7	29,0	26,7	21,9	28,1	24,5	5,553	+1.35,22			276.45.0,42	C.
	\odot S.L.	277.15	1.29,7	31,8	30,3	26,6	31,3	26,5					277.16.29,10	C.
	(f) \odot N.L. M.	299.40	0.4,0	9,5	5,6	3,3	6,5	1,9	5,000	+1.46,62	-2	+8,94	299.42.10,68	C.
	\odot N.L. M. ....	...	...	...	...	...	...	...	4,725	+1.52,50			299.41.57,62	C.
	\odot N.L. M. ....	...	...	...	...	...	...	...	4,359	+2.0,38	+2	-8,94	299.41.56,56	C.
	Jupiter N.L.	321.30	3.15,9	17,1	18,3	11,6	16,7	15,9					321.33.15,32	C.
	θ Cygni R. M.	64.25	0.32,0	34,8	33,7	28,3	33,7	30,2	2,100	+2.47,25			64.28.19,27	C.
	θ Cygni	249.10	0.51,0	50,2	52,1	45,6	49,0	47,4					249.10.49,07	C.
	(g) 55 Camel. SP. R. M.	125.35	3.58,2	60,3	57,5	55,4	59,4	57,4	9,300	+17,32	-2	+1,57	125.39.16,21	C.
	55 Camelop. SP.	187.55	4.51,0	53,0	52,4	47,3	50,8	50,8			+2	-1,57	187.59.48,45	C.
July 14	(h) \odot N.L. M.	277.0	0.53,4	55,5	55,4	50,7	55,7	50,5	6,168	+1.22,39			277.2.15,76	C.
	\odot S.L.	277.30	3.46,0	48,5	48,1	42,5	48,3	43,1			+3	+0,19	277.33.45,59	C.
	(i) \odot N.L. M.	312.0	4.10,5	12,0	11,4	7,8	12,4	9,5	8,000	+44,04	-2	+7,83	312.5.1,72	C.
	\odot N.L. M. ....	...	...	...	...	...	...	...	7,707	+50,29			312.5.0,14	C.
	\odot N.L. M. ....	...	...	...	...	...	...	...	7,336	+58,28	+2	-7,83	312.5.0,30	C.
	(k) η Serpentis R. M.	11.35	4.9,4	12,3	12,3	6,4	12,4	9,2	2,000	+2.49,54	+1½	+0,02	11.41.59,14	C.
	η Serpentis	301.55	2.4,0	5,5	6,4	0,5	5,3	1,1			+4	-0,13	301.57.3,30	C.
	(l) α Lyrae R. M.	53.10	2.32,5	36,0	33,2	29,6	35,9	33,4	1,887	+2.51,69			53.15.24,66	C.
	α Lyrae	260.20	3.41,8	41,8	42,9	36,4	43,5	40,2			+2	+0,48	260.23.40,91	C.
	Saturn S.L.	321.30	1.27,6	30,7	29,3	25,5	30,5	28,3					321.31.28,38	C.
	ζ Aquilae R. M.	28.10	2.14,2	17,1	15,5	11,9	15,8	14,6	0,686	+3.16,60	-2	-0,15	28.15.30,90	C.
	ζ Aquilae	285.20	3.33,0	34,5	34,8	27,8	33,0	31,0			+2	+0,15	285.23.31,87	C.
	Jupiter S.L.	321.35	1.11,5	14,0	12,6	8,8	13,7	11,0					321.36.11,72	C.
July 15	(m) \odot S.L. M.	277.40	1.45,0	51,3	47,9	42,2	47,6	43,1	6,821	+1.8,78			277.42.54,65	C.
	\odot N.L.	277.10	1.28,0	34,5	31,3	26,0	31,3	26,5					277.11.29,33	C.

Runs taken July 7, 2^h, and July 16, 8^h. Coincidences at the five wires taken July 23, 3^h.

(a) Very cloudy: a doubtful observation. (b) A blur. The observation was very unsatisfactory and is not used in determining the adopted zenith point. (c) Very cloudy. (d) Very cloudy and limbs badly defined. (e) No correction for Runs. (f) Considered good. (g) Doubtful on account of disturbance of the mercury by wind. (h) Cloudy and doubtful. The shade was considerably over the object-glass: before taking S.L. it was adjusted. (i) Good. The Barometer and Thermometer readings were inadvertently omitted: the former is interpolated between the preceding and following readings; the latter is assumed to be the same as for the Sun. (k) Disturbed mercury: neither observation good. (l) Disturbed mercury. (m) Ragged limbs with great tremor.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,28	32. 10. 5,76	29,768	58,7	56,5	36,01				69. 57. 50,05	+ 10,72	β Arietis.
	13. 34. 10,68	29,828	55,8	54,3	13,92				51. 21. 32,88	+ 0,92	α Lyrae R.
	13. 34. 11,26								51. 21. 33,46		α Lyrae.
	74. 36. 42,08				3. 26,26	0,91	10,955	8,63	112. 27. 7,08		Saturn.
33,70	74. 32. 51,59		55,0	53,5	3. 25,72	1,98	12,271	22,35	112. 23. 1,26		Jupiter.
	49. 49. 51,36	29,758	60,3	58,7	1. 7,42				87. 38. 7,06	- 10,87	δ Serpentis.
	20. 18. 56,31	30,142	60,2	56,2	21,49				58. 6. 26,08	- 1,04	ζ Herculis.
	28. 14. 7,73				31,15				66. 1. 47,16	- 2,29	Σ 2087.
31,06	- 30. 3. 50,65			55,7	33,62				7. 42. 44,01	+ 2,53	ϵ Ursae Min. R.
	- 30. 3. 49,24								7. 42. 45,42		ϵ Ursae Minoris.
	37. 37. 38,60				44,75				75. 25. 31,63	- 2,53	α Herculis R.
	37. 37. 34,74				24,80				75. 25. 27,77	- 0,40	α Herculis.
(37,22)	23. 7. 13,58				24,81				60. 54. 46,66	- 0,40	Σ 2147.
	23. 7. 38,71				42,88				60. 55. 11,80	- 0,40	* $R. 17^h. 11^m. 45^s$.
	36. 26. 50,59			53,0	34,54				74. 14. 41,75	- 1,80	Piazzì XVII. 94.
	30. 36. 11,44				49,33				68. 23. 54,26	+ 0,44	95 Herculis.
33,32	40. 12. 17,16				39,94				78. 0. 14,77	- 0,06	Piazzì xvii. 362.
	- 34. 22. 10,72			52,8					3. 24. 17,62	+ 1,57	δ Ursae Min. R.
	- 34. 22. 2,27				14,11				3. 24. 26,07		δ Ursae Minoris.
	13. 34. 9,52				20,15				51. 21. 31,91	+ 2,16	α Lyrae R.
33,16	13. 34. 10,18	30,134	55,0	52,7	3. 29,45	0,91	10,947	8,55	51. 21. 32,57	+ 2,49	α Lyrae.
	19. 1. 28,87				3. 29,24	1,99	12,230	21,93	56. 48. 57,30		β Lyrae R.
	19. 1. 29,21								56. 48. 57,64		β Lyrae.
	74. 38. 24,41								112. 28. 52,68		Saturn.
34,17	74. 37. 28,68								112. 27. 42,28		Jupiter.
	30. 3. 51,58	29,752	60,3	62,2	32,75	4,20		15. 45,10	67. 35. 43,31		\odot .
	74. 40. 26,39	29,634	62,6	61,2	3. 22,87	0,91	9,135	10,25	112. 31. 6,88		Saturn.
	29. 55. 27,43	29,886	65,5	67,6	32,36	4,18		15. 45,30	67. 58. 49,19		\odot .
32,33	30. 26. 56,11	29,930	68,0	69,0	33,05	4,25		16. 18,86	67. 58. 47,89		\odot .
	52. 52. 27,69				1. 14,05	47. 31,72			90. 9. 37,16		\odot .
	52. 52. 24,63								90. 9. 34,10		\odot .
	52. 52. 23,57								90. 9. 33,04		\odot .
31,22	74. 43. 42,33	30,062	56,1	52,8	3. 30,12	1,99	7,922	22,91	112. 34. 41,65		Jupiter.
	2. 21. 13,72	30,066	55,7	52,6	2,40				40. 8. 24,40	+ 4,67	θ Cygni R.
	2. 21. 16,08								40. 8. 26,76		θ Cygni.
	- 58. 49. 43,22				1. 36,08				- 21. 4. 11,02	- 1,42	55 Camel. SP. R.
31,79	- 58. 49. 44,54								- 21. 4. 12,34		55 Camelop. SP.
	30. 12. 42,77	30,300	63,6	66,2	33,28	4,22		15. 45,40	68. 16. 5,51		\odot .
	30. 44. 12,60				33,99	4,28			68. 16. 5,19		\odot .
	65. 15. 28,73	30,324			2. 3,46	53. 7,34		15. 59,55	102. 27. 33,21		\odot .
31,39	65. 15. 27,15								102. 27. 31,63		\odot .
	65. 15. 27,31								102. 27. 31,79		\odot .
	55. 7. 33,85	30,348	59,6	58,5	1. 23,24				92. 56. 5,37	+ 0,16	η Serpentis R.
	55. 7. 30,31								92. 56. 1,83		η Serpentis.
32,79	13. 34. 8,33		59,5	58,2	14,05				51. 21. 30,66	+ 4,56	α Lyrae R.
	13. 34. 7,92								51. 21. 30,25		α Lyrae.
	74. 41. 55,39				3. 29,35	0,91	11,083	10,06	112. 32. 22,05		Saturn.
	38. 34. 2,09		58,8	57,7	46,42				76. 21. 56,79	+ 4,97	ζ Aquilae R.
31,39	38. 33. 58,88				3. 31,39	1,99	12,228	22,01	76. 21. 53,58		ζ Aquilae.
	74. 46. 38,73			56,1					112. 36. 54,40		Jupiter.
	30. 53. 21,66	30,338	62,6	66,0	34,25	4,30		15. 45,40	68. 25. 14,49		\odot .
	30. 21. 56,34				33,55	4,23			68. 25. 19,34		\odot .

Coincidence of Micrometer Wire with fixed Wire = $10', 118, 10', 125, 10', 128, 10', 132, 10', 138$ at the five wires. From July 11 = $10', 111, 10', 114, 10', 118, 10', 125, 10', 130$.

One Micrometer Revolution = $20'', 859$.

Correction for Runs = $-2'', 3$. From July 6 = $-0'', 0$. From July 9 = $-5'', 4$.

Adopted Zenith Point = $246^\circ. 49'. 32'', 99$.

Assumed Co-latitude = $37^\circ. 47'. 8'', 28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	r.	' "		' "	° ' "	
July 15	(a) N.L. M.	317.10	2.14,0	21,8	16,4	13,8	19,5	15,0	8,000	+44,04	-2	+6,66	317.13. 7,03	C.
	» N.L. M. ....	...	...	...	...	...	...	...	7,804	+48,27			317.13. 4,60	C.
	» N.L. M. ....	...	...	...	...	...	...	...	7,531	+54,22	+2	-6,66	317.13. 3,89	C.
	(b) Saturn N.L.	321.30	1.34,3	39,3	37,6	32,8	38,9	34,6					321.31.35,97	C.
	Jupiter S.L.	321.35	1.33,2	37,8	37,0	31,1	38,8	33,9					321.36.35,02	C.
	(c) α ² Capricorni R. M.	1.30	2.1,8	5,8	6,8	0,7	5,9	1,4	85,330	+5. 8,46			1.37.11,83	C.
	α ² Capricorni	312.0	1.52,8	55,2	56,3	50,3	55,4	51,4			+3	-0,31	312.1.52,92	C.
	(d) α Cygni R. M.	59.15	3.55,0	59,6	59,0	53,9	58,8	56,7	6,906	+1. 6,92	-1	-0,15	59.20. 3,22	C.
	α Cygni	254.15	3.62,4	64,5	66,9	58,9	65,4	61,6			+2	+0,59	254.19. 3,14	C.
	ζ Cygni R. M.	44.10	1.13,9	18,3	17,4	12,6	17,4	14,6	7,526	+53,98	-1	-0,09	44.12. 9,36	C.
	ζ Cygni	269.25	1.54,8	57,4	57,5	51,5	56,9	53,8			+2	+0,35	269.26.55,32	C.
	β Aquarii R. M.	8.15	4.36,1	39,5	40,5	33,4	40,8	36,7	1,074	+3. 8,65			8.22.45,65	C.
	β Aquarii	305.15	1.17,3	21,0	22,0	15,5	20,0	16,4					305.16.18,47	C.
July 16	(e) ☉ N.L. M.	277.20	1.49,3	53,4	53,4	47,3	54,5	47,3	12,334	-46,23			277.21. 40,3	C.
	☉ S.L.	277.50	2.32,7	36,8	35,4	30,0	37,2	30,5					277.52.33,32	C.
	(f) N.L. M.	321.15	0.16,8	22,0	19,1	15,2	21,3	16,6	8,000	+44,33	+1	-2,53	321.16. 0,25	C.
	» N.L. M. ....	...	...	...	...	...	...	...	7,795	+48,71	+2	-5,06	321.16. 2,10	C.
	» N.L. M. ....	...	...	...	...	...	...	...	7,677	+51,27	+3	-7,59	321.16. 2,13	C.
July 18	Jupiter N.L.	321.35	4.52,8	60,5	56,5	52,1	59,1	53,6					321.39.54,88	C.
	(g) θ Cygni R. M.	64.25	1.45,0	50,4	46,2	41,8	46,2	44,5	5,561	+1.34,91	-2	-0,72	64.28.19,56	C.
	θ Cygni	249.10	0.46,9	46,7	48,4	41,8	48,0	43,1			+1	+0,18	249.10.45,86	C.
July 20	(h) ☉ N.L. M.	278.0	4.21,0	22,9	23,3	16,6	23,7	18,5	14,168	-1.24,48			278.2.55,74	C.
	☉ S.L.	278.30	4.24,9	26,5	27,2	20,8	26,2	22,5					278.34.23,90	C.
July 21	(i) Saturn S.L.	321.30	4.27,6	28,9	29,5	22,4	27,8	26,6					321.34.26,57	C.
	(i) Jupiter S.L.	321.40	3.42,0	42,5	44,4	36,5	41,2	40,6					321.43.40,78	C.
	h ² Sagittarii	324.10	1.41,9	40,4	43,0	35,2	39,5	38,0					324.11.39,47	C.
	(k) N.L. M.	320.45	3.8,2	8,1	10,9	2,7	6,7	5,5	12,000	-39,41	-2	-4,90	320.47.22,31	C.
	» N.L. M. ....	...	...	...	...	...	...	...	12,240	-44,27			320.47.22,35	C.
	» N.L. M. ....	...	...	...	...	...	...	...	12,531	-50,08	+2	+4,90	320.47.21,44	C.
	α ² Capricorni R. M.	1.30	3.30,2	31,0	34,4	25,4	30,3	28,2	89,458	+3.42,27	-1	+0,04	1.37.11,78	C.
	α ² Capricorni	312.0	1.56,7	57,0	58,9	51,8	55,6	54,2			+2	-0,14	312.1.55,33	C.
	(l) α Cygni R. M.	59.15	4.61,0	62,4	64,3	56,0	62,1	58,3	9,853	+5,38	-2	-0,59	59.20. 5,47	C.
	α Cygni	254.15	3.63,0	61,5	66,3	57,5	63,3	60,8					254.19. 1,88	C.
	(m) 61 ¹ Cygni R. M.	52.35	0.43,7	44,8	46,4	38,3	43,7	41,6	10,066	+1,09			52.35.44,07	C.
	61 ¹ Cygni	261.0	3.25,8	24,6	27,4	19,5	24,5	23,4			+3	+1,06	261.3.24,83	C.
	(n) ☉ S.L. M.	279.10	0.19,9	20,1	20,6	15,5	20,2	15,7	12,550	-50,73			279.9.27,90	C.
	☉ N.L.	278.35	2.57,3	57,3	59,4	52,8	57,0	54,0					278.37.55,93	C.
July 23	γ Aquilæ R. M.	24.45	4.13,5	15,6	17,8	11,2	16,8	14,3	3,076	+2.26,89			24.51.41,22	C.
	γ Aquilæ	288.45	2.23,6	24,7	26,4	21,6	24,3	22,7			+3	+0,24	288.47.23,82	C.
	55 Camel. SP. R. M.	125.40	1.29,7	32,4	34,8	28,3	33,8	29,7	16,368	-2.10,22	-1	+0,39	125.39.21,44	C.
	(o) 55 Camelopardi SP.	187.55	4.45,0	46,6	49,8	43,2	48,5	44,5			+1	-0,39	187.59.45,91	C.
	(p) α Delphini R. M.	29.55	4.24,4	20,3	23,2	15,0	19,6	20,6	10,676	-11,64			29.59. 8,33	C.
	α Delphini	283.35	4.55,6	56,3	60,9	51,3	56,0	55,0			+3	+0,36	283.39.55,59	C.
	μ Aquarii	308.30	4.38,8	39,9	43,3	34,3	40,4	38,2					308.34.38,57	C.
	(q) 61 ¹ Cygni R. M.	52.35	0.57,5	59,5	61,9	55,6	59,9	57,3	10,881	-16,00	-1	-0,12	52.35.42,38	C.
	61 ¹ Cygni	261.0	3.23,9	22,9	26,8	18,6	24,1	22,7			+1	+0,12	261.3.22,85	C.
	σ Capricorni	314.45	4.6,9	8,5	12,7	3,5	10,0	7,6					314.49. 7,67	C.
	» N.L. M.	312.35	2.5,5	5,7	11,7	2,5	7,4	4,0	12,000	-39,41	-2	-6,66	312.36.19,89	C.
	» N.L. M. ....	...	...	...	...	...	...	...	12,250	-44,48			312.36.21,39	C.
	» N.L. M. ....	...	...	...	...	...	...	...	12,575	-50,99	+2	+6,66	312.36.21,54	C.
	λ Capricorni	311.5	0.32,3	32,2	37,0	28,5	33,5	29,9			+2	-0,13	311.5.32,04	C.
July 25	30 Aquarii R. M.	7.20	1.60,0	61,5	65,2	56,7	62,4	58,3	11,063	-19,86			7.21.40,57	C.
	30 Aquarii	306.15	2.26,2	24,4	29,2	20,2	26,8	23,5					306.17.24,75	C.
	Saturn S.L.	321.35	0.54,0	58,3	57,6	54,1	59,7	54,7	4,839	+1.50,01	-2	-0,15	321.35.56,23	C.
	ζ Aquilæ R. M.	28.10	3.43,0	46,5	45,4	41,2	46,6	44,9			+2	+0,15	28.15.33,79	C.
	ζ Aquilæ	285.20	3.28,8	32,4	32,8	26,2	31,6	29,2					285.23.29,70	C.

Runs taken July 23, 3^{3h}. Runs and Coincidence at middle wire taken July 30, 2^{3h}.

(a) Uneven. (b) The S.L. of Saturn is hid by the Ring. The center was placed mid-way between the wires, but the measure of diameter is uncertain. (c) Bad setting. (d) Microscope D was moved before reading off, and the reading is consequently conjectural. (e) Bad limbs. (f) Somewhat hurried. Coincidence adopted for the third observation is 10'.135. (g) Cloudy and doubtful. (h) Ragged and tremulous. (i) Exceedingly tremulous and ill-defined. (k) Waving and very rough: I was doubtful whether the limb was full. Calculated correction for defect of illumination = -0'.33, which is applied. (l) No correction for Runs. (m) Too near fixed wire. (n) Cloudy and somewhat uncertain. (o) Small negative correction for Runs. (p) The image waving. (q) Good.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,37	70.23.34,04	30,266	65,1	66,2					107.34.40,01		♃.
	70.23.31,61				2.38,80	54.29,93		15.48,82	107.34.37,58		♃.
	70.23.30,90								107.34.36,87		♃.
	74.42.2,98	30,248	59,3	56,4	3.29,46	0,91	9,233	9,23	112.32.49,04		Saturn.
	74.47.2,03	30,242	58,3	55,5	3.30,98	1,99	8,012	21,97	112.38.1,27		Jupiter.
33,18	65.12.21,16	30,226	57,8	55,0	2.5,58				103.1.35,02	+10,82	α ² Capricorni R.
	65.12.19,93								103.1.33,79		α ² Capricorni.
32,34	7.29.29,77	30,214	57,3	54,1					45.16.45,73	+6,69	α Cygni R.
	7.29.30,15				7,68				45.16.46,11		α Cygni.
32,06	22.37.23,63	30,208	57,1	54,0	24,34				60.24.56,25	+9,20	ζ Cygni R.
	22.37.22,33								60.24.54,95		ζ Cygni.
32,06	58.26.47,34	30,202	56,6	54,3	1.34,76				96.15.30,38	+15,88	β Aquarii R.
	58.26.45,48								96.15.28,52		β Aquarii.
	30.31.31,31	30,136	63,0	67,1	33,46	4,26		15.45,50	68.34.54,29		♃.
	31.3.0,33				34,17	4,32			68.34.52,96		♃.
	74.26.27,26	30,056	63,5	63,2					111.37.27,99		♃.
	74.26.29,11				3.21,79	55.7,49		15.38,15	111.37.29,84		♃.
	74.26.29,14								111.37.29,87		♃.
32,71	74.50.21,89	29,852	63,8	62,0	3.26,30	1,99	8,033	21,75	112.41.16,23		Jupiter.
	2.21.13,43		63,2	61,6					40.8.24,05	+6,73	θ Cygni R.
	2.21.12,87				2,34				40.8.23,49		θ Cygni.
	31.13.22,75	29,696	65,4	68,5	33,81	4,35		15.45,80	69.16.46,29		♃.
	31.44.50,91				34,51	4,41			69.16.43,49		♃.
	74.44.53,58	29,820	58,1	55,0	3.27,77	0,91	11,073	9,96	112.35.18,76		Saturn.
	74.54.7,74				3.31,13	1,99	12,167	21,37	112.44.23,79		Jupiter.
	77.22.6,48		55,2	51,7	4.12,76				115.13.27,52	+6,57	h ² Sagittarii.
	73.57.49,32		54,6	51,5					111.10.41,15		♃.
	73.57.49,36				3.18,85	52.30,84		14.55,87	111.10.41,19		♃.
33,55	73.57.48,45								111.10.40,28		♃.
	65.12.21,21	29,828	54,0	51,2	2.4,89				103.1.34,38	+11,28	α ² Capricorni R.
33,67	65.12.22,34								103.1.35,51		α ² Capricorni.
	7.29.27,52	29,832	53,5	52,2					45.16.43,41	+8,73	α Cygni R.
34,45	7.29.28,89				7,61				45.16.44,78		α Cygni.
	14.13.48,92	29,836	53,2	50,8	14,73				52.1.11,93	+11,60	61 ¹ Cygni R.
	14.13.51,84								52.1.14,85		61 ¹ Cygni.
32,52	32.19.54,91	30,184	58,5	59,5	36,52	4,49		15.46,10	69.51.49,12		♃.
	31.48.22,94				35,79	4,42			69.51.48,69		♃.
33,68	41.57.51,77	30,138	56,4	53,7					79.45.52,45	+9,09	γ Aquilæ R.
	41.57.50,83				52,40				79.45.51,51		γ Aquilæ.
31,96	-58.49.48,45	30,134	55,6	53,0	1.36,22				-21.4.16,39	-4,48	55 Camel. SP. R.
	-58.49.47,08								-21.4.15,02		55 Camelop. SP.
32,61	36.50.24,66	30,124	55,0	52,2					74.38.16,72	+11,84	α Delphini R.
	36.50.22,60				43,78				74.38.14,66		α Delphini.
	61.45.5,58				1.48,37				99.34.2,23	+14,32	μ Aquarii.
	14.13.50,61	30,120	54,4	50,8	14,87				52.1.13,76	+12,26	61 ¹ Cygni R.
32,66	14.13.49,86								52.1.13,01		61 ¹ Cygni.
	67.59.34,68				2.24,01				105.49.6,97	+16,70	s Capricorni.
	65.46.46,81	30,116	54,0	50,5					103.1.34,21		♃.
	65.46.48,40				2.9,63	49.16,94		14.46,43	103.1.35,80		♃.
	65.46.48,55								103.1.35,95		♃.
	64.15.59,05	30,108	53,8	50,4	2.1,07				102.5.8,40	+18,76	λ Capricorni.
	59.27.52,42	30,100	53,5	50,1	1.39,13				97.16.39,83	+19,18	30 Aquarii R.
	59.27.51,76								97.16.39,17		30 Aquarii.
31,75	74.46.23,24	29,940	61,1	59,5	3.27,04	0,90	10,920	8,35	112.36.49,31		Saturn.
	38.33.59,20	29,936	60,0	57,8	45,78				76.21.53,26	+7,12	ζ Aquilæ R.
	38.33.56,71								76.21.50,77		ζ Aquilæ.

Coincidence of Micrometer Wire with fixed Wire = 10', 111, 10', 114, 10', 118, 10', 125, 10', 130 at the five wires. From

July 25 = 10', 113, 10', 116, 10', 120, 10', 127, 10', 132, which are deduced from the last coincidences by applying + 0', 002.

One Micrometer Revolution = 20'', 859.

Correction for Runs = - 5'', 4. From July 21 = - 3'', 8. From July 25 = - 5'', 3.

Adopted Zenith Point = 246°. 49'. 32'', 99.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
July 25	Jupiter N.L.	321.45	1.51,5	56,3	56,1	51,7	57,2	53,8					321.46.54,10	C.
	θ Cygni R. M.	64.25	3.2,6	5,3	6,0	0,6	6,1	4,4	9,234	+18,40	-1	-0,18	64.28.21,85	C.
	θ Cygni	249.10	0.42,6	44,5	47,1	39,4	45,6	42,4			+1	+0,18	249.10.43,66	C.
	Capella R. M.	60.25	1.21,5	24,5	24,0	19,5	25,3	23,7	9,564	+11,51	-1	-0,16	60.26.34,20	C.
	(a) Capella	253.10	2.32,0	32,3	34,3	27,2	34,4	30,9					253.12.31,40	C.
July 26	(b) \odot N.L. M.	279.15	1.24,8	27,4	27,0	22,0	28,1	23,2	11,190	-22,40	-1	+0,21	279.16.2,98	C.
	\odot S.L.	279.45	2.31,9	35,0	35,4	29,6	35,3	32,0			+1	-0,11	279.47.32,64	C.
	Arcturus R. M.	34.35	0.37,3	41,6	38,4	35,6	40,5	38,0	4,424	+1.58,73	-1	-0,05	34.37.37,13	C.
	Arcturus	279.0	1.26,0	30,8	28,3	23,1	29,7	26,0			+1	+0,05	279.1.27,10	C.
	ζ Ursæ Min. R. M.	92.50	3.17,4	20,6	19,7	15,5	19,8	16,3	10,859	-15,50	-1	-0,73	92.53.1,40	C.
	(c) ζ Ursæ Minoris...	220.45	1.7,3	11,7	10,6	6,9	11,4	7,3					220.46.9,00	C.
	η Draconis R. M.	76.25	3.3,8	6,9	6,4	1,5	5,8	3,1	7,323	+58,26	-1	-0,28	76.29.2,03	C.
	η Draconis	237.5	5.4,2	7,6	6,4	0,7	7,0	4,1			+1	+0,28	237.10.4,38	C.
	ϵ Ursæ Min. R. M.	96.50	3.38,3	41,2	42,2	35,5	42,4	38,2	10,617	-10,37	-1	-0,06	96.53.28,55	C.
	ϵ Ursæ Minoris...	216.45	0.37,6	40,0	39,9	34,8	40,0	36,5					216.45.38,02	C.
	(d) \odot N.L.	279.40	3.3,4	6,5	5,8	2,3	6,3	3,5			+3	-0,05	279.43.4,03	C.
July 29	(e) \odot S.L. M.	280.25	4.35,5	38,0	38,6	32,4	37,4	35,6	13,082	-1.1,93	-2	+0,56	280.28.34,06	C.
	(f) η Serpentis R. M.	11.35	5.28,2	30,6	33,3	23,1	30,8	28,4	5,630	+1.33,66			11.42.1,76	C.
	η Serpentis	301.55	1.63,3	64,7	68,2	59,3	63,8	61,5			+3	-0,07	301.57.3,03	C.
	(f) α Lyræ R. M.	53.10	4.35,0	36,8	38,5	30,2	37,5	35,0	7,530	+53,94	-1	-0,12	53.15.28,50	C.
	α Lyræ	260.20	3.37,3	37,5	40,5	33,4	37,8	36,5			+1	+0,12	260.23.36,65	C.
	Saturn N. L.	321.35	2.4,6	6,4	9,3	1,6	6,2	5,0					321.37.5,15	C.
	Jupiter S. L.	321.50	1.16,5	17,6	19,3	14,0	18,4	16,4					321.51.16,80	C.
July 30	ϵ Bootis R. M.	42.20	1.4,4	8,3	9,7	2,6	9,7	4,5	8,407	+35,65	-1	-0,08	42.21.41,90	C.
	ϵ Bootis	271.15	2.22,4	24,7	26,3	19,6	25,6	22,7			+1	+0,08	271.17.23,21	C.
	(g) \circ Draconis R. M.	73.45	3.18,4	21,6	22,9	15,3	20,6	18,5	9,405	+15,06	+1	-0,25	73.48.33,78	C.
	\circ Draconis	239.50	0.33,5	34,0	35,8	29,9	35,2	34,0			+2	+1,00	239.50.34,63	C.
Aug. 1	(h) \odot S.L. M.	281.10	4.17,8	20,3	22,0	15,0	21,4	18,6	15,615	-1.54,62			281.12.23,80	C.
	\odot N.L.	280.40	0.47,5	52,0	52,4	46,5	52,4	47,5					280.40.49,57	C.
	(i) Polaris SP. R. M.	106.5	3.31,6	34,4	34,3	27,7	35,1	30,6	11,890	-36,88		+1,65	106.7.56,42	C.
	Polaris SP.	207.30	1.11,9	16,8	14,6	10,1	17,8	11,4				-0,68	207.31.12,87	C.
	Polaris SP. R. M.	106.5	3.37,6	40,5	40,6	34,5	42,0	36,4	12,690	-53,71		+11,12	106.7.55,38	C.
	Polaris SP.	207.30	1.32,4	37,1	34,3	30,6	38,0	32,5				-22,04	207.31.11,84	C.
	Polaris SP. R. M.	106.5	3.34,1	37,0	36,6	30,6	38,8	32,2	13,723	-1.15,36		+37,11	106.7.56,00	C.
	Polaris SP.	207.30	2.12,4	17,6	14,6	11,5	18,2	12,6				-62,54	207.31.11,54	C.
	ϵ Ursæ Min. R. M.	96.50	4.9,6	12,4	15,0	8,6	16,4	11,3	12,140	-42,13	+1	-0,07	96.53.29,27	C.
	ϵ Ursæ Minoris...	216.45	0.37,3	38,5	38,4	34,6	40,3	36,0			+1	+1,11	216.45.38,51	C.
	α Ophiuchi R. M.	27.15	0.20,0	23,0	21,0	17,2	22,7	20,0	1,495	+2.59,82	-1	-0,04	27.18.20,36	C.
	α Ophiuchi	286.20	0.44,2	47,7	47,6	42,5	48,6	44,0			+2	+0,14	286.20.45,77	C.
	(k) Saturn N.L.	321.35	3.11,1	14,6	14,5	8,9	15,5	12,6					321.38.12,30	C.
	Jupiter S.L.	321.50	3.48,9	51,5	53,1	46,3	54,0	50,0					321.53.49,95	C.
Aug. 2	\odot S.L. M.	281.25	1.21,2	27,0	24,3	19,9	25,9	21,6	6,657	+1.12,23			281.27.35,30	G.
	\odot N.L.	280.55	0.59,0	63,8	63,0	57,2	63,7	58,0					280.56.0,60	G.
	η Draconis R. M.	76.25	1.30,9	31,0	31,7	25,9	31,2	29,7	2,770	+2.33,31			76.29.3,11	G.
	η Draconis	237.10	0.2,0	7,0	3,4	0,1	6,6	1,0					237.10.3,33	G.
	56 Herculis	273.0	2.29,0	34,1	33,3	27,1	32,8	29,8					273.2.30,57	G.
	ϵ Ursæ Min. R. M.	96.50	2.38,7	39,9	40,9	36,3	42,3	39,2	7,736	+49,73			96.53.28,81	G.
	ϵ Ursæ Minoris...	216.45	0.36,3	39,8	38,3	33,2	39,7	35,7					216.45.37,07	G.
	α Herculis R. M.	29.10	0.43,7	46,3	45,6	42,6	45,4	44,0	6,620	+1.13,01			29.11.57,48	G.
	α Herculis	284.25	2.6,3	12,0	10,9	5,0	9,8	6,1					284.27.7,97	G.
	α Lyræ R. M.	53.10	3.24,0	27,2	26,0	20,9	27,8	26,0	4,118	+2.5,19			53.15.29,91	G.
	α Lyræ	260.20	3.35,0	37,5	37,6	31,2	38,1	34,8					260.23.35,07	G.
	Saturn S.L.	321.35	3.50,4	55,3	55,1	48,2	55,3	52,4			+2	-0,25	321.38.51,85	G.
	Jupiter S.L.	321.50	4.40,8	44,3	44,7	37,8	44,0	42,9					321.54.41,58	G.

Aug. 1, 8^h, Molyneux fast on Hardy, 1^h, 3.

(a) Unsteady. (b) Cloudy. (c) At the third wire, the time being noted. It was found by calculation that the correction for error of position of the Circle at the N.P.D. of this star is of no sensible amount. (d) Cloudy. As seen but an instant it appeared to be exactly on the fixed wire. (e) Cloudy and doubtful. (f) The mercury waving and observations quite uncertain. (g) Delayed by clouds. (h) Ragged and unsteady. (i) Very unsteady. Times by Molyneux, 12^h.57^m.0^s, 12^h.59^m.0^s, 13^h.17^m.5^s, 13^h.23^m.0^s, 13^h.29^m.5^s, and 13^h.37^m.0^s. (k) The Micrometer not being read, the tabular semi-diameter is used.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
32,75	74.57.21,11	29,936	60,0	57,8	3.30,29	1,98	8,058	21,49	112.48.19,19		Jupiter.
	2.21.11,14	29,930	59,6	57,1					40.8.21,78	+9,07	θ Cygni R.
	2.21.10,67				2,36				40.8.21,31		θ Cygni.
32,80	6.22.58,79	29,960	59,6	60,0					44.10.13,47	+0,38	Capella R.
	6.22.58,41				6,40				44.10.13,09		Capella.
32,12	32.26.29,99	29,976	62,8	65,5	35,99	4,50		15.46,30	70.29.56,06		⊙.
	32.57.59,65				36,73	4,57			70.29.53,79		⊙.
	32.11.55,86	30,010	64,4	64,5					69.59.39,91	-7,17	Arcturus R.
	32.11.54,11				35,77				69.59.38,16		Arcturus.
35,20	-26.3.28,41	30,024	62,2	60,8					11.43.11,87	+5,95	ζ Ursæ Min. R.
	-26.3.23,99				28,00				11.43.16,29		ζ Ursæ Minoris.
33,21	-9.39.29,04	30,032	61,7	59,6					28.7.29,47	+6,17	η Draconis R.
	-9.39.28,61				9,77				28.7.29,90		η Draconis.
33,28	-30.3.55,56	30,040	60,2	58,4					7.42.39,40	+7,15	ε Ursæ Min. R.
	-30.3.54,97				33,32				7.42.39,99		ε Ursæ Minoris.
32,40	32.53.31,04	30,010	64,2	66,6	36,58	4,56		15.46,50	70.56.57,84		⊙.
	33.39.1,07	29,850	60,6	61,0	37,87	4,65		15.46,60	71.10.55,97		⊙.
	55.7.31,23	29,908	56,0	53,0					92.56.2,47	+1,62	η Serpentis R.
	55.7.30,04				1.22,96				92.56.1,28		η Serpentis.
	13.34.4,49	29,912	55,5	51,8					51.21.26,79	+8,64	α Lyrae R.
32,58	13.34.3,66				14,02				51.21.25,96		α Lyrae.
	74.47.32,16				3.30,42	0,90	9,160	10,01	112.38.19,97		Saturn.
	75.1.43,81	29,916	54,0	51,5	3.33,96	1,97	12,212	21,82	112.52.2,26		Jupiter.
32,56	24.27.51,09	30,008	60,6	60,8					62.15.25,41	-2,67	ε Bootis R.
	24.27.50,22				26,04				62.15.24,54		ε Bootis.
34,20	-6.59.0,79	30,044	55,6	54,0					30.48.0,37	+10,00	ο Draconis R.
	-6.58.58,36				7,12				30.48.2,80		ο Draconis.
34,65	34.22.50,81	30,258	60,0	62,6	39,33	4,74		15.47,00	71.54.46,68		⊙.
	33.51.16,58				38,56				71.54.45,74		⊙.
	-39.18.23,43	30,236	62,7	65,6					-1.32.1,88	+0,43	Polaris SP. R.
	-39.18.20,12				46,73				-1.31.58,57		Polaris SP.
33,61	-39.18.22,39				46,73				-1.32.0,84	+0,43	Polaris SP. R.
	-39.18.21,15								-1.31.59,60		Polaris SP.
33,77	-39.18.23,01	30,230	63,4						-1.32.1,46	+0,43	Polaris SP. R.
	-39.18.21,45				46,73				-1.31.59,90		Polaris SP.
33,89	-30.3.56,28	30,228	60,6	59,5					7.42.38,55	+8,23	ε Ursæ Min. R.
	-30.3.54,48				33,45				7.42.40,35		ε Ursæ Minoris.
33,07	39.31.12,63	30,232	60,2	60,0					77.19.8,52	+2,34	α Ophiuchi R.
	39.31.12,78				47,61				77.19.8,67		α Ophiuchi.
	74.48.39,31	30,226	59,5	58,5	3.29,97	0,90		8,20	112.39.24,86		Saturn.
33,22	75.4.16,96			57,0	3.34,33	1,96	12,196	21,66	112.54.35,95		Jupiter.
	34.38.2,31	30,126	63,8	64,8	39,36	4,77		15.47,20	72.9.57,98		⊙.
	34.6.27,61				38,59	4,71			72.9.56,97		⊙.
	-9.39.30,12	30,012	63,4	64,1					28.7.28,48	+7,17	η Draconis R.
	-9.39.29,66				9,68				28.7.28,94		η Draconis.
	26.12.57,58			63,3	28,04				64.0.33,90	+3,17	56 Herculis.
	-30.3.55,82				32,96				7.42.39,50	+8,39	ε Ursæ Min. R.
	-30.3.55,92								7.42.39,40		ε Ursæ Minoris.
	37.37.35,51				43,88				75.25.27,67	+1,65	α Herculis R.
	37.37.34,98								75.25.27,14		α Herculis.
	13.34.3,08	30,000	62,0	60,5					51.21.25,18	+9,62	α Lyrae R.
	13.34.2,08				13,82				51.21.24,18		α Lyrae.
	74.49.18,86				3.27,70	0,90	10,920	8,22	112.39.45,72		Saturn.
	75.5.8,59			59,7	3.31,77	1,96	12,319	22,94	112.55.23,74		Jupiter.

Coincidence of Micrometer Wire with fixed Wire = 10', 113, 10', 116, 10', 120, 10', 127, 10', 132 at the five wires.

One Micrometer Revolution = 20", 859.

Correction for Runs = - 5", 3.

Adopted Zenith Point = 246°. 49'. 32", 99.

Assumed Co-latitude = 37°. 47'. 8", 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. " "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. " "	Observer.
			A	B	C	D	E	F						
Aug. 3	⊙ N.L. M.	281. 5	4. 38,6	48,3	45,8	41,1	48,2	41,8	4,884	+ 1.49,23			281. 11. 32,36	G.
	⊙ S.L.	281. 40	3. 2,2	9,8	7,5	3,0	9,7	2,3					281. 43. 5,20	G.
	(a) 95 Herculis.	277. 25	0. 41,1	38,0	41,2	34,2	39,3	39,6					277. 25. 38,78	G.
	Piazzi XVII. 362.	287. 0	1. 48,5	45,9	47,9	42,3	46,6	47,9					287. 1. 46,20	G.
	δ Ursæ Min. R. M.	101. 10	2. 32,9	29,8	33,3	25,0	32,0	32,0	12,159	- 42,54			101. 11. 47,84	G.
	δ Ursæ Minoris...	212. 25	2. 22,7	20,6	21,2	16,1	21,1	22,9					212. 27. 20,37	G.
	α Lyræ R. M.	53. 10	3. 41,2	40,5	41,9	35,2	41,8	42,3	4,803	+ 1.50,92			53. 15. 30,75	G.
	α Lyræ	260. 20	3. 39,6	35,4	38,6	32,4	36,3	38,8					260. 23. 36,22	G.
	4 Aquilæ R. M.	16. 25	3. 43,9	42,4	44,8	38,1	42,1	44,1	0,008	+ 3.30,93			16. 32. 12,85	G.
	4 Aquilæ	297. 5	1. 56,0	55,0	56,7	51,1	55,2	55,0					297. 6. 54,50	G.
	Saturn N.L.	321. 35	3. 58,3	57,7	59,5	53,3	59,2	59,9					321. 38. 57,28	G.
	β Lyræ R. M.	47. 45	3. 45,0	43,2	44,4	37,9	41,9	45,5	11,641	- 31,73			47. 48. 10,60	G.
	β Lyræ	265. 50	0. 56,4	54,0	57,5	50,7	54,9	55,2					265. 50. 54,62	G.
	Jupiter N.L.	321. 50	4. 48,2	46,3	49,3	41,8	49,4	49,8					321. 54. 46,62	G.
Aug. 4	(b) ⊙ S.L. M.	281. 55	2. 35,0	34,2	35,9	28,7	34,2	32,9	6,282	+ 1.20,07			281. 58. 53,30	G.
	⊙ N.L.	281. 25	2. 19,9	21,7	22,3	16,9	20,9	19,4					281. 27. 19,95	G.
	Saturn S.L.	321. 35	4. 38,4	37,0	38,9	31,9	39,1	40,0					321. 39. 37,08	G.
	Jupiter S.L.	321. 55	1. 21,0	20,2	21,5	15,8	21,2	21,8					321. 56. 20,12	G.
	δ Aquilæ R. M.	17. 20	3. 30,2	29,6	30,8	24,1	30,3	30,5	2,169	+ 2.45,84			17. 26. 14,74	G.
	δ Aquilæ	296. 10	2. 54,1	50,9	54,9	46,0	52,3	52,1					296. 12. 51,43	G.
	θ Cygni R. M.	64. 25	2. 23,8	21,0	22,8	17,1	22,0	24,1	7,103	+ 1. 2,94			64. 28. 24,51	G.
	θ Cygni.	249. 10	0. 43,4	40,1	42,9	35,9	41,2	42,2					249. 10. 40,88	G.
	λ Ursæ Min. R. M.	103. 25	1. 29,1	25,8	25,8	22,4	25,8	29,0	10,502	- 7,97			103. 26. 18,20	G.
	λ Ursæ Minoris...	210. 10	2. 52,4	48,9	50,8	44,3	48,9	50,9					210. 12. 49,08	G.
Aug. 5	δ Ursæ Min. R. M.	101. 10	2. 20,6	14,3	19,3	12,2	16,9	19,2	11,467	- 28,10			101. 11. 48,75	G.
	δ Ursæ Minoris...	212. 25	2. 23,3	17,6	20,3	14,8	18,1	20,9					212. 27. 18,93	G.
	α Lyræ R. M.	53. 10	3. 40,1	36,2	38,1	32,6	36,8	40,1	4,662	+ 1.53,85			53. 15. 30,80	G.
	α Lyræ	260. 20	3. 38,9	33,2	38,8	31,2	35,8	37,8					260. 23. 35,58	G.
	Saturn N.L.	321. 35	4. 40,2	37,2	40,4	33,4	39,0	41,1					321. 39. 38,08	G.
	Jupiter N.L.	321. 55	1. 23,4	21,0	23,1	16,5	22,2	23,5					321. 56. 21,48	G.
Aug. 6	Saturn S.L.	321. 40	0. 15,0	11,1	14,9	9,3	11,3	13,2					321. 40. 12,45	G.
	β Lyræ R. M.	47. 45	2. 45,0	39,8	42,5	37,0	39,8	42,2	8,690	+ 29,83			47. 48. 10,61	G.
	β Lyræ	265. 50	0. 59,0	53,0	58,8	51,7	52,2	55,7					265. 50. 54,98	G.
	Jupiter S.L.	321. 55	2. 50,0	46,4	51,3	44,1	46,3	48,9					321. 57. 47,55	G.
	(c) α ² Capricorni R. M.	1. 30	4. 26,8	23,0	28,8	19,9	23,0	25,9	1,961	+ 2.50,19			1. 37. 14,32	G.
	α ² Capricorni	312. 0	1. 56,4	51,0	57,9	48,5	51,3	54,0					312. 1. 53,00	G.
Aug. 8	α Cygni R. M.	59. 15	3. 40,3	35,8	39,7	33,8	35,0	39,7	5,673	+ 1.32,76			59. 20. 9,78	G.
	α Cygni	254. 15	3. 60,2	53,1	60,8	51,6	54,0	58,1					254. 18. 55,90	G.
	⊙ N.L. M.	282. 30	2. 16,8	14,2	16,4	10,7	12,8	13,4	7,299	+ 58,85			282. 33. 12,68	G.
	⊙ S.L.	283. 0	4. 49,3	47,0	51,7	42,7	46,7	47,2					283. 4. 46,95	G.
	η Serpentis R. M.	11. 40	0. 38,5	34,5	38,5	31,2	34,8	36,0	5,969	+ 1.26,59			11. 42. 2,11	G.
	η Serpentis	301. 55	1. 67,4	61,8	66,2	58,9	61,5	62,9					301. 57. 2,92	G.
Aug. 9	δ Ursæ Min. R. M.	101. 10	2. 59,9	55,1	59,9	52,6	56,8	57,4	13,292	- 1. 6,17			101. 11. 50,50	G.
	δ Ursæ Minoris...	212. 25	2. 22,8	17,0	20,7	15,0	16,8	21,1					212. 27. 18,67	G.
	α Lyræ R. M.	53. 10	3. 31,8	27,8	31,0	24,0	28,2	31,8	4,218	+ 2. 3,11			53. 15. 31,86	G.
	α Lyræ	260. 20	3. 38,0	31,2	36,6	30,4	32,8	36,8					260. 23. 33,95	G.
	Saturn S.L.	321. 40	0. 55,1	52,2	55,8	49,3	51,4	54,8					321. 40. 53,02	G.
	Jupiter S.L.	321. 55	4. 17,1	11,7	17,8	8,8	13,0	15,9					321. 59. 13,62	G.
	61 ¹ Cygni R. M.	52. 30	4. 32,0	28,0	33,3	24,0	27,8	31,3	6,344	+ 1.18,77			52. 35. 47,72	G.
	61 ¹ Cygni	261. 0	3. 24,1	17,8	22,8	15,0	17,2	22,5					261. 3. 19,57	G.
	⊙ N.L. M.	282. 45	4. 24,0	24,4	24,2	18,4	21,1	21,8	7,275	+ 59,34			282. 50. 21,22	G.
	⊙ S.L.	283. 20	1. 59,0	58,9	59,1	53,0	57,0	56,3					283. 21. 57,02	G.
Aug. 9	Piazzi XVII. 300.	280. 40	0. 25,8	22,0	24,2	18,9	22,8	25,2					280. 40. 23,12	G.
	59 Serpentis M.	298. 55	1. 29,1	24,3	25,9	21,2	23,8	25,8	15,168	- 1.45,30			298. 54. 39,58	G.
	δ Ursæ Min. R. M.	101. 10	2. 21,3	15,2	19,8	12,0	18,1	18,5	11,420	- 27,12			101. 11. 50,13	G.
	δ Ursæ Minoris...	212. 25	2. 22,1	15,9	19,0	13,0	18,0	19,3					212. 27. 17,65	G.

Runs and Coincidence at the middle wire taken Aug. 8, 1^h. The coincidence was found to be the same as the last.

(a) Before this observation the Circle was adjusted more accurately to the meridian.

(b) Misty.
(c) A blur.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
34,10	34.21.59,37	29,944	67,0	69,2	38,40	4,74		15.47,30	72.25.28,61		☉.
	54.53.32,21				39,16	4,81			72.25.27,54		☉.
	30.36.5,07	29,906	64,0	62,0	33,65				68.23.47,00	+6,07	95 Herculis.
	40.12.12,49				48,06				78.0.8,83	+4,58	Piazzii xvii. 362.
	-34.22.14,13		63,3	61,6					3.24.15,21		δ Ursæ Min. R.
	-34.22.13,34				38,94				3.24.16,00	+9,77	δ Ursæ Minoris.
	13.34.2,96								51.21.24,99		α Lyræ R.
	13.34.2,51				13,75				51.21.24,54	+9,86	α Lyræ.
	50.17.20,86				1.8,46				88.5.37,60		4 Aquilæ R.
	50.17.20,79								88.5.37,53	+5,56	4 Aquilæ.
33,67	74.49.23,57				3.26,61	0,90	9,321	8,34	112.40.5,90		Saturn.
	19.1.23,11				19,64				56.48.51,03		β Lyræ R.
	19.1.20,91								56.48.48,83	+9,97	β Lyræ.
	75.5.12,91		60,9		3.30,62	1,96	7,928	22,87	112.56.12,72		Jupiter.
33,08	35.9.19,59	29,814	70,0	74,0	39,00	4,84		15.47,50	72.41.14,53		☉.
	34.37.46,24				38,25	4,77			72.41.15,50		☉.
	74.50.3,37	29,862	66,8	66,0	3.24,63	0,90	10,979	8,96	112.40.26,42		Saturn.
	75.6.46,41			65,0	3.28,94	1,95	12,335	23,10	112.56.58,58		Jupiter.
	49.23.18,97								87.11.33,02		δ Aquilæ R.
	49.23.17,72				1.5,77				87.11.31,77	+9,03	δ Aquilæ.
	2.21.9,20			63,5					40.8.19,81		θ Cygni R.
	2.21.7,17				2,33				40.8.17,78	+12,29	θ Cygni.
	-36.36.44,49		64,0	61,3					1.9.41,53		λ Ursæ Min. R.
	-36.36.44,63				42,26				1.9.41,39	+9,91	λ Ursæ Minoris.
33,84	-34.22.15,04	29,852	67,0	64,7	38,63				3.24.14,61		δ Ursæ Min. R.
	-34.22.14,78								3.24.14,87	+10,27	δ Ursæ Minoris.
	13.34.2,91				13,64				51.21.24,83		α Lyræ R.
	13.34.1,87								51.21.23,79	+10,34	α Lyræ.
	74.50.4,37				3.25,10	0,90	9,294	8,62	112.40.45,47		Saturn.
	75.6.47,77			63,5	3.29,52	1,95	8,030	21,80	112.57.45,42		Jupiter.
	74.50.38,74	29,902	64,0	59,0	3.27,97	0,90	10,941	8,57	112.41.5,52		Saturn.
	19.1.23,10				19,74				56.48.51,12	+10,66	β Lyræ R.
	19.1.21,27								56.48.49,29		β Lyræ.
	75.8.13,84				3.32,14	1,95	12,268	22,41	112.58.29,90		Jupiter.
33,66	65.12.19,39		60,2	57,0	2.3,72				103.1.31,39	+12,17	α ² Capricorni R.
	65.12.19,29								103.1.31,29		α ² Capricorni.
	7.29.23,93				7,56				45.16.39,77	+14,03	α Cygni R.
	7.29.22,19								45.16.38,03		α Cygni.
32,52	35.43.38,97	30,004	66,8	67,7	40,59	4,91		15.48,10	73.47.11,03		☉.
	36.15.13,24				41,38	4,97			73.47.9,83		☉.
	55.7.31,60	30,000	65,3	63,3	1.21,50				92.56.1,38	+2,42	η Serpentis R.
	55.7.29,21								92.55.58,99		η Serpentis.
	-34.22.16,79				38,93				3.24.12,56	+11,07	δ Ursæ Min. R.
	-34.22.15,04								3.24.14,31		δ Ursæ Minoris.
	13.34.1,85				13,74				51.21.23,87	+11,06	α Lyræ R.
	13.34.0,24								51.21.22,26		α Lyræ.
	74.51.19,31			62,5	3.27,32	0,89	10,937	8,53	112.41.45,49		Saturn.
	75.9.39,91		63,8	62,0	3.31,87	1,94	12,251	22,23	112.59.55,89		Jupiter.
33,64	14.13.45,99	29,992	62,0	58,9	14,56				52.1.8,83	+17,45	61 ¹ Cygni R.
	14.13.45,86								52.1.8,70		61 ¹ Cygni.
	36.0.47,51	29,980	73,0	74,5	40,44	4,95		15.48,20	74.4.19,48		☉.
	36.32.23,31				41,22	5,01			74.4.19,60		☉.
33,89	33.50.49,41	29,926	70,5	69,1	37,64				71.38.35,33	+6,09	Piazzii xvii. 300.
	52.5.5,87	29,916	69,4	68,1	1.12,07				89.53.26,22	+4,35	59 Serpentis.
	-34.22.16,42								3.24.13,41		δ Ursæ Min. R.
	-34.22.16,06				38,45				3.24.13,77	+11,27	δ Ursæ Minoris.

Coincidence of Micrometer Wire with fixed Wire = 10",113, 10",116, 10",120, 10",127, 10",132 at the five wires.

One Micrometer Revolution = 20",859.

Correction for Runs = - 5",3. From Aug. 4 = - 3",0.

Adopted Zenith Point = 246°. 49'. 32",99. After the Sun Aug. 3 = 246°. 49'. 33",71.

Assumed Co-latitude = 37°. 47'. 8",28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. 0 1	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			" "	" "	" "	" "	" "	" "						
Aug. 9	α Lyræ R. M.	53.10	3.18,9	14,7	16,8	11,4	15,1	18,9	3,630	+2.15,37			53.15.31,00	G.
	α Lyræ	260.20	3.39,1	34,1	36,8	31,0	35,2	37,6					260.23.35,27	G.
	Saturn N.L.	321.40	0.57,9	54,8	57,1	51,0	55,8	56,9					321.40.55,50	G.
	δ Draconis R. M. ...	73.45	2.19,1	14,8	17,0	10,9	14,7	17,5	6,370	+1.18,22			73.48.33,65	G.
	δ Draconis	239.50	0.34,0	28,9	31,1	25,0	30,0	32,6					239.50.30,22	G.
	Σ 2448	263.30	1.15,8	10,0	13,2	7,7	10,3	14,0					263.31.11,72	G.
	Jupiter N.L.	321.55	4.14,8	11,0	14,0	7,6	11,8	14,4					321.59.11,85	G.
Aug. 10	\odot S.L. M.	283.35	4.33,0	33,3	34,2	26,0	33,4	30,9	10,567	-9,32			283.39.22,03	G.
	\odot N.L.	283.5	2.49,6	50,8	49,9	43,0	48,6	46,1					283.7.47,72	G.
Aug. 11	\odot N.L. M.	283.20	4.19,6	16,9	19,9	10,8	14,3	16,3	6,932	+1.6,51			283.25.22,38	G.
	\odot S.L.	283.55	1.60,6	58,2	60,8	54,5	56,2	58,8					283.56.57,98	G.
	(a) δ N.L. M.	315.30	0.43,3	41,9	42,7	37,3	39,8	40,3	9,781	+6,93	-2	+7,28	315.30.55,03	G.
	δ N.L. M. ....	...	...	...	...	...	...	...	9,620	+10,35	-1	+3,64	315.30.54,81	G.
	δ N.L. M. ....	...	...	...	...	...	...	...	9,418	+14,64			315.30.55,46	G.
	δ N.L. M. ....	...	...	...	...	...	...	...	9,255	+18,19	+1	-3,64	315.30.55,37	G.
	δ N.L. M. ....	...	...	...	...	...	...	...	9,048	+22,61	+2	-7,28	315.30.56,15	G.
	70 Ophiuchi.	296.25	3.46,2	41,0	46,0	37,4	41,2	42,8					296.28.42,07	G.
	(b) α Lyræ R. M.	53.10	4.21,8	18,0	21,2	14,7	17,1	20,1	6,507	+1.15,37			53.15.33,75	G.
	α Lyræ	260.20	3.39,5	30,2	37,5	29,6	31,7	36,0					260.23.33,73	G.
	Saturn N.L.	321.40	1.30,8	26,0	29,9	23,0	24,4	29,0					321.41.27,03	G.
	Σ 2404	288.10	3.42,1	35,0	40,4	33,9	34,8	38,7					288.13.37,12	G.
	Σ 2448 M.	263.30	2.29,6	22,4	28,4	19,2	20,8	25,9	13,633	-1.13,28			263.31.10,87	G.
	Σ 2449. <i>sf.</i>	292.5	1.20,9	14,9	20,0	13,2	13,2	18,0					292.6.16,58	G.
	Jupiter N.L.	322.0	0.27,4	23,0	27,0	20,3	22,1	24,9					322.0.24,08	G.
	η Lyræ R. M.	53.30	0.19,2	17,5	18,9	14,3	14,9	18,0	11,436	-27,46			53.29.49,64	G.
	η Lyræ	260.5	4.23,9	15,5	23,5	13,7	15,8	21,0					260.9.18,47	G.
	γ Aquilæ R. M. ...	24.45	4.31,3	27,9	32,0	23,9	26,0	29,4	3,574	+2.16,54			24.51.44,51	G.
	γ Aquilæ	288.45	2.25,8	19,0	23,8	17,1	17,2	22,6					288.47.20,68	G.
	β Aquilæ R. M. ...	20.35	2.32,0	28,2	31,8	25,3	26,9	29,4	5,954	+1.26,91			20.38.55,59	G.
	β Aquilæ	293.0	0.15,8	10,1	14,8	7,4	7,7	12,1					293.0.11,30	G.
	(c) 55 Camelo. SP. R. M.	125.40	0.32,3	27,7	31,8	24,5	26,0	29,6	13,000	-1.0,08			125.39.28,52	G.
	55 Camelopardi SP.	187.55	4.44,7	39,0	44,0	37,0	37,6	43,5					187.59.40,50	G.
Aug. 12	\odot S.L. M.	284.10	4.32,2	30,8	32,6	26,0	28,1	29,0	8,993	+23,52			284.14.52,75	G.
	\odot N.L.	283.40	3.17,3	15,5	17,0	11,0	14,0	15,2					283.43.14,60	G.
	56 Herculis.	273.0	2.31,9	29,5	31,5	25,0	28,0	29,4					273.2.28,92	G.
	Piazzi XVII. 300..	280.40	0.25,7	21,8	23,2	18,5	18,8	23,3					280.40.21,83	G.
	70 Ophiuchi.	296.25	3.45,4	42,8	43,7	39,0	40,9	42,5					296.28.41,93	G.
	(d) Σ 2278. <i>p.</i>	242.35	2.8,5	3,9	6,0	0,8	2,4	5,0					242.37.4,18	G.
	59 Serpentis.	298.50	4.42,0	39,8	40,8	34,7	37,4	39,7					298.54.38,50	G.
	Σ 2339 M.	281.20	3.25,8	21,8	24,0	18,2	19,0	24,1	6,559	+1.14,28			281.24.36,01	G.
	α Lyræ R. M.	53.10	3.32,6	30,2	31,4	25,9	28,2	31,2	4,148	+2.4,57			53.15.34,05	G.
	α Lyræ	260.20	3.38,7	32,0	36,0	30,0	31,0	34,9					260.23.33,33	G.
	Saturn S.L.	321.40	2.5,9	2,7	5,1	0,0	1,8	4,8					321.42.3,13	G.
	(e) Jupiter S.L.	322.0	1.52,7	48,3	52,8	46,7	47,8	50,0			+3	-0,60	322.1.48,90	G.
Aug. 13	β Serpentis.	283.5	1.33,1	31,0	31,3	26,5	29,4	30,3					283.6.30,08	G.
	ϵ Ursæ Min. R. M.	96.50	2.22,0	17,0	21,4	14,4	19,0	20,0	6,679	+1.11,77			96.53.30,45	G.
	ϵ Ursæ Minoris ...	216.45	0.38,4	36,3	35,8	31,8	36,4	35,1					216.45.35,57	G.
	α Herculis R. M. ...	29.10	0.51,0	49,9	49,7	47,0	47,9	50,3	6,772	+1.9,84			29.11.59,04	G.
	α Herculis.	284.25	2.9,9	10,8	9,7	5,9	6,1	7,8					284.27.8,10	G.
	Piazzi XVII. 300..	280.40	0.24,0	22,1	22,3	18,8	18,4	22,7					280.40.21,33	G.
	70 Ophiuchi.	296.25	3.45,0	42,8	43,1	38,0	39,7	42,1					296.28.41,33	G.
	Σ 2278.	242.35	2.7,1	4,8	4,8	0,1	1,3	3,7					242.37.3,38	G.
	59 Serpentis.	298.50	4.42,4	39,9	40,5	36,0	36,0	40,7					298.54.38,68	G.
	Σ 2339.	281.20	4.38,7	36,2	37,1	33,0	33,9	37,2					281.24.35,45	G.
	Saturn N.L.	321.40	1.64,3	61,5	64,0	59,3	60,0	63,1			+3	-0,57	321.42.1,21	G.
	Σ 2404.	288.10	3.39,9	36,0	37,9	33,3	33,8	37,7					288.13.35,98	G.
	Σ 2415.	278.35	1.27,0	21,4	23,7	18,7	22,9	23,2					278.36.22,65	G.

Runs taken Aug. 14, 22^h.

(a) Very unsatisfactory on account of faintness.
 (b) A blur. (c) Mercury much disturbed.

(d) The preceding and brightest of three.
 (e) Not satisfactory.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,14	13.34. 2,71 13.34. 1,56 74.51.21,79	29,916	69,4	68,1	13,57				51.21.24,56 51.21.23,41 112.42. 2,47	+ 11,30	α Lyræ R. α Lyræ. Saturn.
31,94	- 6.58.59,94 - 6.59. 3,49 16.41.38,01 75. 9.38,14				3.24,42 6,89 16,87 3.29,10	0,89	9,270	8,87	30.48. 1,45 30.47.57,90 54.29. 3,16 113. 0.36,18	+ 12,90 + 12,19	\circ Draconis R. \circ Draconis. Σ 2448. Jupiter.
	36.49.48,32 36.18.14,01	29,684	73,2	77,3	41,03 40,25	5,04 4,98		15.48,40	74.21.44,19 74.21.45,96		\odot . \odot .
	36.35.48,67 37. 7.24,27 68.41.21,32 68.41.21,10 68.41.21,75 68.41.21,66 68.41.22,44	29,890 30,000	66,8 68,2	66,4 67,9	41,85 42,65	5,02 5,08		15.48,50	74.39.22,28 74.39.21,62 105.52.10,19 105.52. 9,97 105.52.10,62 105.52.10,53 105.52.11,31		\odot . \odot . \odot . \odot . \odot . \odot .
33,74	49.39. 8,36 13.33.59,96 13.34. 0,02 74.51.53,32 41.24. 3,41 16.41.37,16 45.16.42,87 75.10.50,37	30,090 30,094	64,0 63,7	61,0 59,1	1. 7,43 13,90				87.27.24,07 51.21.22,14 51.21.22,20 112.42.38,49	+ 2,18 + 11,72	70 Ophiuchi. α Lyræ R. α Lyræ. Saturn.
	41.24. 3,41 16.41.37,16 45.16.42,87 75.10.50,37 13.19.44,07 13.19.44,76	30,102	62,3	57,9	50,74 17,32 58,25 3.34,66 13,68	0,89	9,331	8,23	79.12. 2,43 54.29. 2,76 83. 4.49,40 113. 1.53,63 51. 7. 6,03 51. 7. 6,72	+ 8,59 + 12,66 + 9,09	Σ 2404. Σ 2448. Σ 2449. <i>sf</i> . Jupiter. η Lyræ R. η Lyræ.
34,05	41.57.40,20 41.57.46,97				51,89				79.45.49,37 79.45.47,14	+ 13,29 + 12,45	γ Aquilæ R. γ Aquilæ.
32,60	46.10.38,12 46.10.37,59				1. 0,10				83.58.46,50 83.58.45,97	+ 12,25	β Aquilæ R. β Aquilæ.
33,44	- 58.49.54,81 - 58.49.53,21				1.35,17				- 21. 4.21,70 - 21. 4.20,10	- 9,73	55 Camel. SP. R. 55 Camelop. SP.
34,51	37.25.19,04 36.53.40,89 26.12.55,21 33.50.48,12 49.39. 8,22 - 4.12.29,53 52. 5. 4,79 34.35. 2,30	30,238 30,260 30,274	70,0 69,7 67,7	71,1 68,2 65,5	43,21 42,40 28,00 38,35 1. 7,23 4,21 1.13,39 39,47	5,11 5,05		15.48,70	74.57.16,72 74.57.15,22 64. 0.31,49 71.38.34,75 87.27.23,73 33.34.34,54 89.53.26,46 72.22.50,05	+ 4,36 + 6,49 + 2,26 + 12,12 + 4,60 + 8,81	\odot . \odot . 56 Herculis. Piazzi xvii. 300. 70 Ophiuchi. Σ 2278. <i>p</i> . 59 Serpentis. Σ 2339.
33,69	13.33.59,66 13.33.59,62 74.52.29,42 75.12.15,19				13,82 3.28,46 3.34,09	0,89 1,93	10,955 12,359	8,71 23,20	51.21.21,76 51.21.21,72 112.42.56,56 113. 2.32,43	+ 11,93	α Lyræ R. α Lyræ. Saturn. Jupiter.
33,01	36.16.56,37 - 30. 3.56,74 - 30. 3.58,14	30,380 30,388	71,6 70,6	73,0 70,7	41,50 32,89				74. 4.46,15 7.42.38,65 7.42.37,25	- 2,44 + 9,95	β Serpentis. ϵ Ursæ Min. R. ϵ Ursæ Minoris.
33,57	37.37.34,67 37.37.34,39 33.50.47,62 49.39. 7,62 - 4.12.30,33 52. 5. 4,97 34.35. 1,74 74.52.27,50 41.24. 2,27 31.46.48,94	30,396	69,1	67,5	43,78 38,29 1. 7,13 4,20 1.13,31 39,42 3.28,42 50,45 35,47	0,89	9,274	8,98	75.25.26,73 75.25.26,45 71.38.34,19 87.27.23,03 33.34.33,75 89.53.26,56 72.22.49,44 112.43.12,29 79.12. 1,00 69.34.32,69	+ 2,85 + 6,63 + 2,34 + 12,33 + 4,68 + 8,95 + 8,86 + 10,76	α Herculis R. α Herculis. Piazzi xvii. 300. 70 Ophiuchi. Σ 2278. 59 Serpentis. Σ 2339. Saturn. Σ 2404. Σ 2415.

Coincidence of Micrometer Wire with fixed Wire = 10',113, 10',116, 10',120, 10',127, 10',132 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = - 3'',0. From Aug. 12 = - 3'',7.

Adopted Zenith Point = 246°. 49'. 33'',71.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Aug. 13	Jupiter N.L.	322. 0	1. 43,1	40,2	42,0	36,9	39,0	41,1					322. 1. 39,58	G.
	η Lyræ R. M.	53. 25	3. 23,6	22,8	21,4	19,3	19,3	23,9	5,923	+ 1. 27,56			53. 29. 48,86	G.
	η Lyræ.	260. 5	4. 21,7	17,1	20,3	14,3	17,9	20,2					260. 9. 18,05	G.
Aug. 15	(a) \odot N.L. M.	284. 35	2. 30,1	32,3	30,0	27,0	29,4	29,2	7,700	+ 50,52			284. 38. 19,89	G.
	\odot S.L.	285. 5	4. 58,2	62,7	60,8	56,8	59,0	58,8					285. 9. 58,77	G.
	α Ursæ Maj. R. M.	77. 10	3. 26,2	19,0	22,0	16,8	17,9	24,2	12,355	- 46,58			77. 12. 34,02	G.
	α Ursæ Majoris.	236. 25	1. 36,8	35,9	34,8	28,9	37,4	33,9					236. 26. 34,42	G.
	(b) Polaris SP. R. M.	106. 5	2. 23,9	14,9	20,0	11,3	16,4	17,0	8,324	+ 37,51			106. 7. 54,48	G.
	Polaris SP.	207. 30	1. 16,2	17,0	16,0	11,0	16,5	14,2					207. 31. 15,00	G.
	Arcturus R. M.	34. 35	1. 16,5	10,0	10,8	8,5	8,5	15,6	6,051	+ 1. 24,92			34. 37. 36,42	G.
	Arcturus.	279. 0	1. 30,8	32,1	27,8	27,7	29,4	29,4					279. 1. 29,35	G.
	56 Herculis.	273. 0	2. 31,8	34,1	31,0	27,9	29,8	30,0					273. 2. 30,45	G.
	η Ophiuchi.	314. 30	1. 41,4	42,8	38,0	37,3	39,3	40,5					314. 31. 39,68	G.
	α Herculis R. M.	29. 10	1. 38,1	35,1	34,0	32,9	32,0	38,0	8,983	+ 23,77			29. 11. 58,59	G.
	α Herculis.	284. 25	2. 9,4	11,0	9,4	5,7	6,4	7,4					284. 27. 7,95	G.
	θ Ophiuchi.	323. 45	3. 46,3	46,0	44,7	42,0	43,7	44,9					323. 48. 44,13	G.
	(c) \gg N.L. M.	325. 15	1. 61,0	59,9	60,6	56,7	58,4	58,0	9,780	+ 6,95	-2	- 0,72	325. 17. 5,08	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	9,833	+ 5,90	-1	- 0,36	325. 17. 4,39	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	9,845	+ 5,78			325. 17. 4,63	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	9,896	+ 4,82	+1	+ 0,36	325. 17. 4,03	G.
	\gg N.L. M. ....	...	...	...	...	...	...	...	9,913	+ 4,57	+2	+ 0,72	325. 17. 4,14	G.
	Σ 2278.	242. 35	1. 66,4	64,1	65,0	58,7	63,3	62,9					242. 37. 3,15	G.
	μ^1 Sagittarii.	320. 0	4. 60,6	61,0	60,1	54,4	58,3	59,0					320. 4. 58,28	G.
	Σ 2339.	281. 20	4. 38,7	39,9	37,0	32,7	37,4	37,7					281. 24. 36,67	G.
	Σ 2404.	288. 10	3. 41,4	39,1	39,8	35,0	37,5	38,8			+3	+ 0,26	288. 13. 38,41	G.
	Σ 2415.	278. 35	1. 26,6	24,8	24,0	19,8	24,2	22,4					278. 36. 23,47	G.
	Jupiter N.L.	322. 0	2. 53,2	53,1	52,3	49,2	51,8	52,0					322. 2. 51,58	G.
Aug. 16	\odot S.L. M.	285. 25	3. 21,0	21,2	20,8	16,0	19,0	18,7	8,806	+ 27,46			285. 28. 46,49	G.
	\odot N.L.	284. 55	2. 10,0	10,2	9,8	5,7	7,5	7,7					284. 57. 8,22	G.
	γ^2 Sagittarii.	329. 20	0. 49,0	45,1	47,7	42,3	44,0	46,0					329. 20. 45,58	G.
	(d) μ^1 Sagittarii.	320. 0	4. 59,7	56,8	57,8	52,2	54,1	56,3					320. 4. 56,15	G.
	δ Ursæ Min. R. M.	101. 10	2. 28,0	23,8	26,1	19,8	24,6	23,9	11,634	- 31,54			101. 11. 52,53	G.
	δ Ursæ Minoris.	212. 25	2. 23,3	19,4	19,0	17,0	17,3	20,3					212. 27. 19,10	G.
	(e) \gg S.L. M.	324. 35	4. 23,2	17,8	22,2	14,0	16,7	20,8	10,565	- 9,42	-2	- 2,76	324. 39. 6,40	G.
	\gg S.L. M. ....	...	...	...	...	...	...	...	10,577	- 9,61	-1	- 1,38	324. 39. 7,59	G.
	\gg S.L. M. ....	...	...	...	...	...	...	...	10,634	- 10,68			324. 39. 7,90	G.
	\gg S.L. M. ....	...	...	...	...	...	...	...	10,770	- 13,41	+1	+ 1,38	324. 39. 6,55	G.
	\gg S.L. M. ....	...	...	...	...	...	...	...	10,815	- 14,25	+2	+ 2,76	324. 39. 7,09	G.
	Saturn S.L.	321. 40	3. 13,5	9,8	12,0	5,9	7,1	11,1					321. 43. 9,50	G.
	β Lyræ R. M.	47. 45	3. 12,3	8,3	10,6	3,3	5,3	8,9	9,781	+ 7,11			47. 48. 14,84	G.
	β Lyræ.	265. 50	0. 57,0	53,9	56,2	50,4	50,3	54,0					265. 50. 53,52	G.
	σ Sagittarii.	325. 25	1. 61,0	56,5	58,9	52,9	55,3	57,1					325. 26. 56,72	G.
	Σ 2415.	278. 35	1. 28,2	23,2	24,2	19,4	21,6	24,3					278. 36. 23,32	G.
	Σ 2448.	263. 30	1. 15,3	11,1	12,7	7,0	6,9	12,4					263. 31. 10,75	G.
	π Sagittarii.	320. 15	0. 19,0	15,9	17,3	11,9	13,3	16,0					320. 15. 15,53	G.
	Procyon R. M.	20. 10	3. 25,0	22,0	23,1	19,6	19,4	24,0	4,822	+ 1. 50,56			20. 15. 12,33	G.
	(f) Procyon.	293. 20	3. 57,9	54,4	57,9	50,4	53,3	54,7					293. 23. 54,28	G.
Aug. 17	(f) \odot N.L. M.	285. 15	2. 24,9	24,9	26,3	21,1	23,9	24,0	13,689	- 1. 14,41			285. 16. 9,47	G.
	\odot S.L.	285. 45	2. 52,5	51,0	52,5	47,0	47,8	48,9					285. 47. 49,60	G.
	(f) η Ursæ Maj. R. M.	64. 40	2. 35,9	30,5	32,4	27,4	29,2	33,6	8,978	+ 24,07	+2	- 0,72	64. 42. 54,53	G.
	η Ursæ Majoris.	248. 55	1. 11,3	10,7	10,8	6,4	10,0	8,5			+3	+ 1,62	248. 56. 11,09	G.
	Arcturus R. M.	34. 35	1. 27,0	23,3	21,8	19,7	19,9	25,2	6,530	+ 1. 14,93			34. 37. 37,58	G.
	Arcturus.	279. 0	1. 31,8	30,8	29,5	25,8	28,9	29,0					279. 1. 29,12	G.
	η Ophiuchi.	314. 30	1. 41,6	40,5	38,9	37,0	38,2	40,6					314. 31. 39,27	G.
	α Herculis R. M.	29. 10	1. 42,2	39,1	38,9	36,8	36,7	40,6	9,120	+ 20,90			29. 11. 59,75	G.
	α Herculis.	284. 25	2. 10,3	10,5	10,8	6,1	6,7	8,5					284. 27. 8,55	G.
	θ Ophiuchi.	323. 45	3. 44,7	42,0	43,7	38,8	42,0	42,3					323. 48. 41,80	G.
	μ^1 Sagittarii.	320. 0	4. 59,9	59,5	59,9	54,3	57,0	58,9					320. 4. 57,63	G.

Coincidences at the five wires Aug. 22, 1^h.

(a) Badly defined.

(b) Very unsteady.

(c) Waving. The limb appeared rough, but by calculation was found to be fully illuminated.

(d) No correction for Runs.

(e) Very uneven.

(f) Much unsteadiness.

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Coincidence of Micrometer Wire with fixed Wire = $10^{\circ}.113$, $10^{\circ}.116$, $10^{\circ}.120$, $10^{\circ}.127$, $10^{\circ}.132$ at the five wires. From
Aug. 15 = $10^{\circ}.113$, $10^{\circ}.116$, $10^{\circ}.122$, $10^{\circ}.127$, $10^{\circ}.132$.
One Micrometer Revolution = $20''.859$.
Correction for Runs = $-3''.7$.
Adopted Zenith Point = $246^{\circ}.49'.33''.71$.
Assumed Co-latitude = $37^{\circ}.47'.8''.28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Aug. 17	α Lyrae R. M.	53. 10	4. 13,2	11,7	12,4	8,1	9,3	13,3	6,148	+ 1. 22,89			53. 15. 33,71	G.
	α Lyrae	260. 20	3. 36,1	33,3	34,4	28,9	31,6	33,4					260. 23. 32,52	G.
	Saturn N.L.	321. 40	3. 13,8	12,9	13,0	10,0	10,5	12,9					321. 43. 11,78	G.
	Σ 2402.	288. 30	1. 25,1	23,7	23,5	19,1	20,6	21,7					288. 31. 22,12	G.
	σ Sagittarii.	325. 25	1. 61,7	60,4	60,8	56,9	58,9	59,2					325. 26. 59,40	G.
	Σ 2422.	273. 5	3. 20,0	17,9	19,0	13,2	14,2	17,2					273. 8. 16,52	G.
	Jupiter N.L.	322. 0	3. 55,9	54,9	55,5	51,5	53,1	54,3					322. 3. 53,72	G.
	π Sagittarii.	320. 15	0. 21,3	20,3	20,2	16,1	17,4	19,4			+2	- 0,23	320. 15. 18,85	G.
	Σ 2486. <i>sp.</i>	249. 25	3. 30,0	27,6	28,0	21,4	25,2	27,9					249. 28. 26,27	G.
	(a) δ S.L. M.	322. 15	1. 33,2	30,5	30,5	27,9	29,3	31,0	10,293	- 3,76	-2	- 4,40	322. 16. 22,06	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,411	- 6,15	-1	- 2,20	322. 16. 21,87	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,549	- 8,91			322. 16. 21,31	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,650	- 10,91	+1	+ 2,20	322. 16. 21,51	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,761	- 13,13	+2	+ 4,40	322. 16. 21,49	G.
	ϵ^2 Sagittarii.	315. 25	4. 11,8	11,0	11,7	6,2	8,1	8,8					315. 29. 9,08	G.
	57 Sagittarii.	318. 25	0. 54,7	52,5	53,1	48,2	49,6	51,4					318. 25. 51,48	G.
Aug. 18	\odot S.L. M.	286. 5	2. 40,0	40,8	39,4	34,9	38,3	36,8	11,807	- 35,15			286. 7. 2,90	G.
	\odot N.L.	285. 35	0. 26,7	28,2	26,9	22,8	26,0	22,9					285. 35. 25,52	G.
	α Ursae Maj. R. M.	77. 10	2. 15,4	8,4	11,8	8,2	7,7	13,3	9,028	+ 22,82			77. 12. 33,35	G.
	α Ursae Majoris ..	236. 25	1. 40,2	39,0	38,0	32,0	39,8	35,8					236. 26. 37,27	G.
	ϵ^2 Sagittarii.	315. 25	4. 15,5	17,2	14,8	10,7	13,0	14,1	8,759	+ 28,43			315. 29. 13,70	G.
	β Aquilae R. M.	20. 35	3. 27,0	28,0	25,5	22,9	25,8	27,3					20. 38. 54,10	G.
	β Aquilae.	293. 0	0. 16,0	16,4	13,9	10,8	12,8	13,2	11,999	- 39,16			293. 0. 13,82	G.
	55 Came. SP. R. M.	125. 40	0. 16,0	14,3	14,8	8,9	13,0	12,8					125. 39. 34,11	G.
	55 Camelopardi SP.	187. 55	4. 35,8	34,3	34,1	28,9	33,0	35,1					187. 59. 32,97	G.
	ν Capricorni.	317. 40	0. 58,0	52,3	56,1	50,8	51,4	53,7	4,688	+ 1. 53,35			317. 40. 53,65	G.
Aug. 19	α Cygni R. M.	59. 15	3. 26,0	22,0	23,1	18,4	19,7	23,7					59. 20. 15,25	G.
	α Cygni.	254. 15	3. 57,7	52,9	56,2	49,1	50,5	54,1					254. 18. 53,13	G.
	μ Aquarii.	308. 30	4. 46,3	43,0	44,8	37,9	40,2	43,8					308. 34. 42,32	G.
	(b) δ S.L. M.	314. 40	0. 33,1	29,0	31,4	25,4	26,8	30,2	10,450	- 7,04	-2	- 6,42	314. 40. 15,82	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,570	- 9,46	-1	- 3,21	314. 40. 16,61	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,764	- 13,39			314. 40. 15,89	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,943	- 17,03	+1	+ 3,21	314. 40. 15,46	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	11,050	- 19,15	+2	+ 6,42	314. 40. 16,55	G.
	ν Capricorni.	316. 25	4. 52,6	48,0	51,8	44,8	47,7	49,6	6,053	+ 1. 24,88			316. 29. 48,73	G.
	(c) β Cephei R. M.	84. 25	2. 24,8	22,4	22,9	19,2	17,8	22,1					84. 28. 46,23	G.
	β Cephei.	229. 10	0. 28,7	24,8	24,8	20,3	20,3	25,1					229. 10. 23,97	G.
	\odot S.L. M.	286. 45	1. 43,5	40,5	43,2	38,9	39,0	41,4	11,690	- 32,71			286. 46. 8,26	G.
	\odot N.L.	286. 10	4. 34,4	31,0	33,1	26,0	28,0	31,8					286. 14. 30,38	G.
	(d) Jupiter S.L.	322. 5	0. 65,0	62,8	65,2	59,0	59,6	61,5	10,258	- 2,84			322. 6. 2,12	G.
	λ Ursae Min. R. M.	103. 25	1. 31,0	27,0	28,3	23,2	23,1	27,0					103. 26. 23,66	G.
Aug. 20	λ Ursae Minoris.	210. 10	2. 52,8	48,0	51,0	44,0	44,2	48,2	4,708	+ 1. 52,93			210. 12. 47,83	G.
	α Cygni R. M.	59. 15	3. 25,9	22,9	24,6	20,4	19,9	24,8					59. 20. 15,76	G.
	α Cygni.	254. 15	3. 57,5	52,4	57,8	49,0	50,0	53,6	9,080	+ 21,73			254. 18. 53,10	G.
	β Cephei R. M.	84. 35	3. 28,6	27,0	28,4	23,4	22,6	26,6					84. 28. 47,58	G.
	β Cephei.	229. 10	0. 27,2	23,9	24,9	18,3	19,1	24,0	11,408	- 27,01	-2	- 6,92	229. 10. 22,87	G.
	(f) δ N.L. M.	309. 25	0. 30,1	26,0	29,8	22,8	23,4	26,4					309. 24. 52,45	G.
	δ N.L. M. ....	...	...	...	...	...	...	...	11,606	- 31,08	-1	- 3,46	309. 24. 51,84	G.
	δ S.L. M.	309. 50	4. 37,5	32,9	36,0	29,6	30,3	33,8	10,262	- 2,82	+1	+ 3,46	309. 54. 33,66	G.
	δ S.L. M. ....	...	...	...	...	...	...	...					309. 54. 33,53	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	10,439	- 6,41	+2	+ 6,92	309. 54. 33,53	G.
	θ Aquarii.	307. 30	4. 27,5	21,2	27,6	18,3	19,1	24,1					307. 34. 22,65	G.
	ζ Aquarii.	299. 50	0. 24,0	17,7	23,0	15,9	13,7	17,9					299. 50. 18,68	G.
	(g) \odot S.L. M.	287. 25	0. 27,2	24,1	26,1	20,9	22,8	23,9	8,266	+ 38,72			287. 26. 2,85	G.
	\odot N.L.	286. 50	4. 23,7	20,9	23,4	17,5	19,0	21,9					286. 54. 20,75	G.
Aug. 22	ζ Pegasi R. M.	24. 35	2. 24,1	19,2	22,4	15,4	17,4	21,2	6,860	+ 1. 8,04			24. 38. 27,82	G.
	ζ Pegasi.	289. 0	0. 43,8	40,1	41,2	37,6	36,8	40,1					289. 0. 39,88	G.

Runs taken Sept. 6, 23^h.

- (a) Very uneven.
 (b) Uneven.
 (c) Cloudy.
 (d) Extremely faint from clouds.

- (e) Very cloudy and doubtful.
 (f) Correction applied to Geocentric N.P.D. of S.L. for defect of illumination = + 0",68.
 (g) Badly defined.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	0 " "	Inch.	0	0	" "	" "	r	" "	0 " "	"	
33,12	13 . 34 . 0,00 13 . 33 . 58,81 74 . 53 . 38,07 41 . 41 . 48,41 78 . 37 . 25,69 26 . 18 . 42,81 75 . 14 . 20,01 73 . 25 . 45,14 2 . 38 . 52,56 75 . 26 . 48,35 75 . 26 . 48,16 75 . 26 . 47,60 75 . 26 . 47,80 75 . 26 . 47,78 68 . 39 . 35,37 71 . 36 . 17,77	30,036	72,3	69,5 68,2 67,4	13,59 3 . 25,17 50,12 4 . 31,93 27,91 3 . 30,59 3 . 7,16 2,61 3 . 33,99 2 . 23,58 2 . 48,18	 0,88 52 . 53,88	 9,253 8,016	 9,06 21,97 14 . 55,93	51 . 21 . 21,87 51 . 21 . 20,68 112 . 44 . 19,70 79 . 29 . 46,81 116 . 29 . 5,90 64 . 6 . 19,00 113 . 5 . 18,94 111 . 16 . 0,58 40 . 26 . 3,45 112 . 9 . 40,81 112 . 9 . 40,62 112 . 9 . 40,06 112 . 9 . 40,26 112 . 9 . 40,24 106 . 29 . 7,23 109 . 26 . 14,23	+ 12,98 + 9,23 + 0,87 + 12,42 + 3,80 + 15,36 + 8,38 + 8,84	a Lyræ R. α Lyræ. Saturn. Σ 2402. σ Sagittarii. Σ 2422. Jupiter. π Sagittarii. Σ 2486. sp. .D. .D. .D. .D. .D. e² Sagittarii. 57 Sagittarii.
35,31	39 . 17 . 29,19 38 . 45 . 51,81 - 10 . 22 . 59,64 - 10 . 22 . 56,44 68 . 39 . 39,99 46 . 10 . 39,61 46 . 10 . 40,11	29,930 29,920 29,896	74,0 74,8 73,6	78,9 82,0 72,7	45,05 44,21 10,03 2 . 21,43	5,34 5,28	 	15 . 49,80	76 . 49 . 27,38 76 . 49 . 28,82 27 . 23 . 58,61 27 . 24 . 1,81 106 . 29 . 9,70 83 . 58 . 45,85 83 . 58 . 46,35	- 8,69 + 8,39 + 13,09	.C. .C. α Ursæ Maj. R. α Ursæ Majoris. e² Sagittarii. β Aquilæ R. β Aquilæ.
33,96	- 58 . 50 . 0,40 - 58 . 50 . 0,74			72,0	1 . 31,91				- 21 . 4 . 24,03 - 21 . 4 . 24,37	- 11,59	55 Camel. SP. R. 55 Camelop. SP.
34,19	70 . 51 . 19,94 7 . 29 . 18,46 7 . 29 . 19,42 61 . 45 . 8,61 67 . 50 . 42,11 67 . 50 . 42,90 67 . 50 . 42,18 67 . 50 . 41,75 67 . 50 . 42,84 69 . 40 . 15,02 - 17 . 39 . 12,52 - 17 . 39 . 9,74	29,852 29,848	69,0 67,4	64,7 64,2	2 . 41,14 7,43 1 . 44,72 2 . 17,88 2 . 31,31 18,01	 50 . 0,99	 	 14 . 45,71	108 . 41 . 9,36 45 . 16 . 34,17 45 . 16 . 35,13 99 . 34 . 1,61 104 . 35 . 21,57 104 . 35 . 22,36 104 . 35 . 21,64 104 . 35 . 21,21 104 . 35 . 22,30 107 . 29 . 54,61 20 . 7 . 37,75 20 . 7 . 40,53	+ 14,03 + 18,09 + 16,28 + 18,28 + 16,51	v Capricorni. α Cygni R. α Cygni. μ Aquarii. .D. .D. .D. .D. .D. Capricorni. β Cephei R. β Cephei.
35,10	39 . 56 . 34,55 39 . 24 . 56,67 75 . 16 . 28,41 - 36 . 36 . 49,95 - 36 . 36 . 45,88 7 . 29 . 17,95 7 . 29 . 19,39 - 17 . 39 . 13,87 - 17 . 39 . 10,84 62 . 35 . 18,74 62 . 35 . 18,13 63 . 4 . 59,31 63 . 4 . 59,95 63 . 4 . 59,82 60 . 44 . 48,94 53 . 0 . 44,97	29,942 29,944	68,3 65,0 62,8	68,0 61,5 59,7	47,11 46,24 3 . 33,35 42,51 7,53 18,22 59,5 1 . 40,94 1 . 52,28 1 . 41,86 1 . 15,88	5,42 5,36 1,89	 12,108	15 . 50,20 20,72	77 . 28 . 34,32 77 . 28 . 36,03 113 . 6 . 47,43 1 . 9 . 35,82 1 . 9 . 39,89 45 . 16 . 33,76 45 . 16 . 35,20 20 . 7 . 36,19 20 . 7 . 39,22 99 . 51 . 13,54 99 . 51 . 12,93 99 . 51 . 18,07 99 . 51 . 18,71 99 . 51 . 18,58 98 . 33 . 39,08 90 . 49 . 9,13	+ 15,37 + 18,38 + 16,87 + 22,90 + 23,28	.C. .C. Jupiter. λ Ursæ Min. R. λ Ursæ Minoris. α Cygni R. α Cygni. β Cephei R. β Cephei. .D. .D. .D. .D. .D. θ Aquarii. ζ Aquarii.
35,74	40 . 36 . 29,14 40 . 4 . 47,04 42 . 11 . 5,89 42 . 11 . 6,17	29,952 29,938	70,0 65,8	70,4 63,4	48,02 47,13 51,44	5,49 5,43	 	15 . 50,60	78 . 8 . 29,35 78 . 8 . 27,62 79 . 59 . 5,61 79 . 59 . 5,89	+ 23,33	.C. .C. ζ Pegasi R. ζ Pegasi.

Coincidence of Micrometer Wire with fixed Wire = 10',113, 10',116, 10',122, 10',127, 10',132 at the five wires.

One Micrometer Revolution = $20''$,859.

Correction for Runs = $-3''.7$. From Aug. 19 = $-2''.2$.

Adopted Zenith Point = $246^{\circ}.49'.33''.71$.

Assumed Co-latitude = $37^{\circ}.47'.8'',28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Micro. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.			Observer.
			A	B	C	D	E	F								
		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	
Aug. 22	λ Aquarii.....	307.25	0.31,1	27,1	27,5	23,7	23,2	27,2					307.25.26,60			G.
	β Piscium.....	296.0	2.44,3	39,4	41,8	35,2	35,5	40,3					296.2.39,22			G.
	(a) δ N.L. M.....	299.0	0.33,1	29,2	30,7	25,2	25,8	29,4	9,968	+3,02	-2	-7,24	299.0.24,65			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,080	+0,76	-1	-3,62	299.0.26,01			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,277	-3,23			299.0.25,64			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,449	-6,72	+1	+3,62	299.0.25,77			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,600	-9,76	+2	+7,24	299.0.26,35			G.
	ι Piscium R. M...	19.20	2.15,6	11,6	15,2	7,9	10,0	12,5	3,814	+2.11,58			19.24.23,55			G.
	ι Piscium.....	294.10	4.47,5	43,9	47,5	40,1	41,5	44,7					294.14.43,85			G.
	ω Piscium.....	293.0	1.44,9	41,3	43,1	37,9	37,7	41,6					293.1.40,97			G.
Aug. 23	⊙ N.L. M.....	287.10	3.25,9	25,9	25,2	20,5	23,1	23,2	6,588	+1.14,34			287.14.38,06			G.
	⊙ S.L.	287.45	1.20,4	19,1	18,3	16,0	17,3	16,5					287.46.17,83			G.
	α Lyrae R. M....	53.10	3.36,3	36,0	34,2	30,1	34,9	35,8	4,291	+2.1,64			53.15.35,92			G.
	α Lyrae.....	260.20	3.35,6	31,7	32,1	28,1	30,9	32,5					260.23.31,55			G.
	Saturn N.L.....	321.40	4.43,8	41,9	41,8	37,9	41,8	43,4					321.44.41,42			G.
	Σ 2375.....	293.40	0.49,8	48,2	47,9	44,1	48,0	47,4					293.40.47,50			G.
	Σ 2402.....	288.30	1.23,2	20,8	20,9	16,1	17,8	19,4					288.31.19,60			G.
	Σ 2409.....	285.40	1.23,1	21,8	22,9	16,9	18,1	20,9					285.41.20,52			G.
	Σ 2422.....	273.5	3.19,1	18,0	18,2	11,8	13,9	16,4					273.8.15,98			G.
	Jupiter N.L.....	322.5	1.36,1	35,0	34,0	30,2	33,3	34,9					322.6.33,80			G.
	(b) λ Ursæ Minoris R.	103.25	1.26,0	23,0	22,0	19,2	20,5	23,0					103.26.22,18			G.
	λ Ursæ Minoris...	210.10	2.49,6	45,8	45,2	42,2	43,1	47,2					210.12.45,48			G.
	ι Piscium R. M....	19.20	2.32,7	31,4	32,3	28,0	28,9	32,0	4,728	+1.52,52			19.24.23,22			G.
	ι Piscium.....	291.10	4.47,5	45,0	48,2	39,3	41,7	44,0					291.14.43,93			G.
	γ U. Maj. SP. R. M.	139.55	4.37,1	33,1	36,2	29,2	31,2	35,0	10,759	-13,30			139.59.20,00			G.
	γ Ursæ Majoris SP.	173.35	4.53,6	49,0	53,3	45,1	47,0	51,1					173.39.49,50			G.
	ω Piscium.....	293.0	1.23,9	20,9	22,5	16,9	17,3	20,5	9,130	+20,69			293.1.40,92			G.
	Uranus.....	300.45	3.18,9	15,5	18,0	11,2	12,0	15,9					300.48.15,02			G.
	(c) δ N.L. M.....	293.40	3.56,2	52,4	56,0	48,5	49,1	52,8	10,533	-8,76	-2	-7,12	293.43.36,34			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,731	-12,83	-1	-3,56	293.43.35,83			G.
	δ N.L. M.....	...	...	...	...	...	...	...	10,879	-15,79			293.43.36,43			G.
	δ N.L. M.....	...	...	...	...	...	...	...	11,050	-19,25	+1	+3,56	293.43.36,53			G.
	δ N.L. M.....	...	...	...	...	...	...	...	11,199	-22,26	+2	+7,12	293.43.37,08			G.
	d Piscium.....	291.40	2.22,1	17,8	20,5	14,4	14,2	19,2					291.42.17,87			G.
	δ Piscium.....	292.15	2.39,1	34,1	38,0	31,4	30,9	36,8					292.17.34,87			G.
Aug. 24	(d) ⊙ S.L. M.....	288.5	1.25,3	24,0	24,9	20,3	21,1	22,5	9,180	+19,64			288.6.42,56			G.
	(e) ⊙ N.L.	287.30	4.64,0	62,2	63,8	59,9	60,1	60,0					287.35.1,67			G.
	Saturn S.L.	321.45	0.14,7	12,1	13,1	9,8	9,3	13,2					321.45.12,02			G.
	Σ 2402.....	288.30	1.25,0	21,4	22,5	19,0	16,8	22,1					288.31.21,03			G.
	Σ 2409.....	285.41	1.26,5	23,4	25,0	20,0	17,9	23,5					285.41.22,62			G.
	(f) β Pegasi R. M....	41.50	0.24,8	21,1	23,3	17,2	17,9	21,6	7,882	+46,72			41.51.7,67			G.
	β Pegasi.....	271.45	2.63,4	59,0	63,2	56,2	54,3	59,7					271.47.59,08			G.
Aug. 26	⊙ S.L. M.....	288.45	3.11,2	9,1	10,6	6,1	6,3	9,4	10,318	-4,10			288.48.4,45			G.
	⊙ N.L.	288.15	1.25,0	23,9	24,1	21,3	21,4	23,2					288.16.23,05			G.
	Saturn S.L.	321.45	0.41,8	40,6	40,7	38,0	41,8	42,0					321.45.40,77			G.
	Σ 2375.....	293.40	0.50,6	50,6	50,0	46,1	47,2	48,8					293.40.48,82			G.
	Σ 2409.....	285.40	1.24,6	24,0	23,2	19,3	18,3	22,6					285.41.21,90			G.
	Σ 2422.....	273.5	3.18,3	18,2	18,0	13,5	12,8	16,9					273.8.16,03			G.
	Jupiter S.L.....	322.5	3.25,8	24,0	23,7	20,9	21,1	24,3					322.8.23,05			G.
	γ Aquilæ R. M....	24.45	4.42,0	42,1	42,3	36,5	38,9	42,0	4,056	+2.6,53			24.51.46,81			G.
	γ Aquilæ.....	288.45	2.24,9	22,8	22,8	18,9	18,3	23,0					288.47.21,60			G.
	β Aquilæ R. M....	20.35	2.25,9	25,9	25,0	21,7	23,1	25,1	5,751	+1.31,18			20.38.55,45			G.
	β Aquilæ.....	293.0	0.13,5	13,0	12,5	9,8	8,3	12,0					293.0.11,50			G.
	γ Cephei R. M....	91.20	0.55,1	51,4	54,5	49,0	48,0	52,2	8,110	+41,97			91.21.33,60			G.
Aug. 30	γ Cephei.....	222.15	2.40,1	38,0	38,5	34,0	35,3	38,3					222.17.37,18			G.
	Uranus.....	300.50	0.50,0	47,9	49,6	45,0	44,4	47,8					300.50.47,38			G.
	(g) ζ Pegasi R. M....	24.35	1.43,6	41,2	43,5	36,7	39,3	41,4	4,860	+1.50,16	+2	-0,11	24.38.30,88			G.
	ζ Pegasi.....	289.0	0.40,0	38,8	39,1	34,8	35,0	38,3			+3	+0,24	289.0.37,86			G.

Coincidence at the middle wire taken Sept. 6, 23^b.

(a) The two first observations were hurried, and the Moon's limb was too close to the fixed wire. The others are good. (b) Accidentally on the fixed wire: not very exactly. (c) Unsteady, and remarkably bright. (d) This limb without dark glass: neither observation satisfactory. (e) No correction for Runs. (f) Very cloudy, particularly the reflexion observation. (g) Unsteady.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.					
			Attach.	Free.												
"	"	Inch.	"	"	"	"	"	"	"	"	"					
33,70	60.35.52,89	29,938	65,8	63,4	1.40,43	42.26,38		14.42,26	98.24.41,60	+25,15	λ Aquarii.					
	49.13.55,51				63,2				1.57,8	+24,73	β Piscium.					
	52.10.50,94				62,5)					
	52.10.52,30)					
	52.10.51,93								1.13,18)					
	52.10.52,06)					
	52.10.52,64)					
	47.25.10,16								1.18,5		+25,07	ϵ Piscium R.				
33,74	47.25.10,14	29,864	73,0	76,0		5,47	15.50,80	78.28.45,00		\odot .						
	46.12.7,26							59,28		+25,53	ω Piscium.					
	40.25.4,35							47,04			\odot .					
	40.56.44,12							47,93	5,53							
	13.33.57,79				29,850			69,2	67,0	13,57		+14,08	α Lyræ R.			
	13.33.57,84												α Lyræ.			
	74.55.7,71									3.25,28	0,88	9,269	8,90	112.45.49,29		Saturn.
	46.51.13,79									59,93			84.39.22,00	+8,36	Σ 2375.	
41.41.45,89	50,06			79.29.44,23		+9,90	Σ 2402.									
38.51.46,81	45,29			76.39.40,38		+10,68	Σ 2409.									
26.18.42,27	27,81			64.6.18,36		+13,44	Σ 2422.									
75.17.0,09		3.31,22	1,88	8,026		21,87	113.7.59,58				Jupiter.					
33,83	-36.36.48,47	29,826	66,0	63,1	42,09	0,36	39.18,28	14.44,44	1.9.37,72	+16,30	λ Ursæ Min. R.					
	-36.36.48,23								1.9.37,96		λ Ursæ Minoris.					
33,58	47.25.10,49	29,826	61,4	58,4	1.2,13	0,36	39.18,28	14.44,44	85.13.20,90	+25,20	ϵ Piscium R.					
	47.25.10,22								85.13.20,63		ϵ Piscium.					
34,75	-73.9.46,29	29,818	68,3	70,2		5,57	10,907	8,18	-35.25.44,49	-8,12	γ U. Maj. SP. R.					
	-73.9.44,21				3.6,48				-35.25.42,41	+25,67	γ Ursæ Maj. SP.					
	46.12.7,21								84.0.15,05		ω Piscium.					
	53.58.41,31								91.47.7,71		Uranus.					
	46.54.2,63				59,2				57,7		84.17.38,17)			
	46.54.2,12										84.17.37,66)			
	46.54.2,72									1.1,10	84.17.38,26)			
	46.54.2,82										84.17.38,36)			
	46.54.3,37										84.17.38,91)			
	44.52.44,16										82.40.49,39	+25,53	d Piscium.			
	45.28.1,16									57,4	58,16	+25,57	δ Piscium.			
	41.17.8,85									29,772	64,2	62,6	48,98		15.51,00	
40.45.27,96	48,08	78.49.9,81		\odot .												
74.55.38,31	3.26,72	0,88	10,907	8,18		112.46.4,25		Saturn.								
41.41.47,32	50,37			79.29.45,97		+10,01	Σ 2402.									
38.51.48,91	45,57			76.39.42,76		+10,80	Σ 2409.									
24.58.26,04	26,46			62.46.0,78	+22,26	β Pegasi R.										
24.58.25,37				62.46.0,11		β Pegasi.										
41.58.30,74	29,838	67,5	70,4	50,20	5,65	15.51,40	79.30.32,17		\odot .							
41.26.49,34				49,27	5,59		79.30.32,70		\odot .							
74.56.7,06				3.26,44	0,87		10,947	8,61	112.46.32,30					Saturn.		
46.51.15,11				1.0,19				84.39.23,58	+8,60				Σ 2375.			
38.51.48,19				45,49				76.39.41,96	+11,02				Σ 2409.			
26.18.42,32				27,93				64.6.18,53	+13,89	Σ 2422.						
75.18.49,34				3.32,22	1,87		12,181	21,48	113.9.6,49		Jupiter.					
41.57.46,90				63,0	51,01			79.45.46,19	+14,39	γ Aquilæ R.						
41.57.47,89								79.45.47,18		γ Aquilæ.						
46.10.38,26					59,08			83.58.45,62	+13,98	β Aquilæ R.						
46.10.37,79								83.58.45,15		β Aquilæ.						
35,39				-24.31.59,89	29,900		62,7	60,1	26,07	0,36			13.14.42,32	+14,12	γ Cephei R.	
	-24.31.56,53		13.14.45,68			γ Cephei.										
	54.1.13,67	59,5	1.18,59			91.49.40,18							Uranus.			
34,37	42.11.2,83	29,984	61,0	56,5					79.59.3,35	+24,60	ζ Pegasi R.					
	42.11.4,15				52,24				79.59.4,67		ζ Pegasi.					

Coincidence of Micrometer Wire with fixed Wire = 10',113, 10',116, 10',122, 10',127, 10',132 at the five wires. From Aug. 30 = 10',128, 10',129, 10',133, 10',140, 10',141.

One Micrometer Revolution = 20'',859.

Correction for Runs = -2'',2.

Adopted Zenith Point = 246°. 49'. 33'',71.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	" "	" "	" "	" "	" "	" "	r.	" "		" "	° ' "	
Aug. 30	α Cephei R. M. ...	79.55	1.41,3	39,0	41,8	35,4	36,4	39,9	3,229	+2.24,00			79.59.2,85	G.
	α Cephei.....	233.40	0.11,7	8,9	10,7	5,3	6,0	9,3					233.40.8,63	G.
	β Pegasi R. M. ...	41.50	0.39,7	36,5	38,8	32,5	35,2	37,9	8,478	+34,52			41.51.11,24	G.
	β Pegasi.....	271.45	2.59,9	57,8	60,9	53,8	53,2	58,2					271.47.57,08	G.
	(a) δ S.L. M.	274.55	2.59,7	55,6	59,3	52,1	52,4	56,1	8,805	+27,60	-2	+2,62	274.58.25,87	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	8,748	+28,81	-1	+1,31	274.58.25,77	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	8,670	+30,51			274.58.26,16	G.
	δ S.L. M. ....	...	...	...	...	...	...	...	8,593	+32,27	+1	-1,31	274.58.26,61	G.
Aug. 31	δ S.L. M. ....	...	...	...	...	...	...	...	8,577	+32,62	+2	-2,62	274.58.25,65	G.
	(b) Saturn N.L.	321.45	1.16,1	16,3	17,9	12,3	14,0	16,8					321.46.15,47	G.
	(c) Σ 2369.	296.30	2.53,1	52,3	55,2	48,0	48,9	51,1					296.52.51,22	G.
Sept. 2	⊙ S.L. M.	291.15	2.19,4	20,3	20,3	14,7	18,0	17,8	8,430	+35,52			291.17.53,77	G.
	⊙ N.L.	290.45	1.9,0	10,8	10,4	5,2	8,8	7,0					290.46.8,45	G.
	δ Ursæ Min. R. M. ...	101.10	1.20,9	17,0	20,2	14,0	17,0	20,2	8,280	+38,65			101.11.56,77	G.
	δ Ursæ Minoris...	212.25	2.16,5	16,0	17,4	11,3	13,9	15,9					212.27.14,93	G.
	α Lyræ R. M.	53.10	3.20,7	20,6	20,2	17,2	18,9	23,9	3,579	+2.16,70			53.15.36,70	G.
	α Lyræ	260.20	3.32,6	32,1	31,9	27,2	29,9	31,6					260.23.30,63	G.
	Saturn S.L.	321.45	1.61,7	61,1	61,7	59,3	60,7	63,9					321.47.1,25	G.
	Σ 2369.	296.30	2.54,8	56,0	55,2	51,6	52,2	53,0					296.32.53,58	G.
	Jupiter S.L.	322.10	0.9,4	10,9	10,1	8,3	9,0	9,9					322.10.9,60	G.
	Σ 2449.	292.5	1.17,7	19,0	17,7	14,8	14,5	17,8					292.6.16,82	G.
	Uranus	300.55	1.60,4	60,0	60,9	55,5	57,3	58,8					300.56.58,67	G.
	α Androm. R. M. ...	42.45	3.37,0	36,3	35,2	30,9	34,5	36,9	4,272	+2.2,26			42.50.37,13	G.
	α Andromedæ ...	270.45	3.33,4	32,1	31,5	26,4	29,3	33,1					270.48.30,72	G.
	δ U. Maj. SP. R. M. ...	136.35	3.35,1	35,0	35,3	30,8	32,7	36,9	7,038	+1.4,56			136.39.38,59	G.
Sept. 3	δ Ursæ Maj. SP. ...	176.55	4.31,1	30,0	31,9	27,0	29,8	33,9					176.59.30,28	G.
	Σ 2375.	293.40	0.48,3	49,0	48,4	45,8	46,1	47,9					293.40.47,52	G.
	Jupiter N.L.	322.5	4.38,9	38,8	37,7	34,9	36,4	38,9					322.9.37,27	G.
	Σ 2449.	292.5	1.16,9	18,2	17,0	14,2	14,3	17,8					292.6.16,30	G.
	γ Aquilæ R. M. ...	24.50	1.22,2	23,0	23,0	18,8	19,8	23,9	8,884	+26,05			240.51.47,73	G.
	γ Aquilæ.....	288.45	2.22,6	22,8	21,1	18,4	18,3	22,0					288.47.20,70	G.
	(d) α ² Capricorni R. M. ...	1.35	1.11,7	12,2	13,2	8,8	10,7	11,0	7,258	+59,97			1.37.11,15	G.
	α ² Capricorni	312.0	1.57,9	56,3	58,0	52,8	55,2	56,7					312.1.56,02	G.
	(d) λ Ursæ Min. R. M. ...	103.25	1.16,9	15,9	15,5	11,6	12,3	15,0	9,420	+14,87			103.26.29,30	G.
	λ Ursæ Minoris...	210.10	2.43,4	42,0	41,6	37,2	39,7	42,7					210.12.40,90	G.
Sept. 5	Uranus	300.55	2.56,2	54,9	57,0	50,9	52,4	54,8					300.57.54,15	G.
	⊙ N.L. M.	291.50	2.18,8	17,2	18,1	12,0	15,2	15,8	9,753	+7,93			291.52.23,95	G.
	⊙ S.L.	292.20	4.13,0	12,2	13,1	7,0	9,9	12,9					292.24.11,05	G.
Sept. 6	Saturn S.L.	321.45	2.39,1	38,0	39,0	35,0	37,1	40,8					321.47.37,98	G.
	Σ 2369.	296.30	2.55,3	55,1	56,2	51,0	52,5	54,1					296.32.53,82	G.
	(d) Σ 2408.	288.25	0.41,2	39,8	41,2	36,2	37,4	39,0					288.25.39,08	G.
	(e) Jupiter S.L.	322.10	0.41,9	40,0	42,0	37,8	38,1	40,8					322.10.40,05	G.
	γ Aquilæ R. M. ...	24.50	2.42,6	41,4	44,7	37,3	40,2	42,9	12,671	-52,95			24.51.48,37	G.
	γ Aquilæ.....	288.45	2.22,9	21,1	22,2	17,0	18,3	21,9					288.47.20,40	G.
	β Aquilæ R. M. ...	20.35	2.22,8	22,4	23,0	17,3	19,8	22,2	8,351	+37,17			20.38.58,17	G.
	β Aquilæ.....	293.0	0.11,7	10,5	11,2	6,9	6,7	10,2					293.0.9,52	G.
	α Cephei R. M. ...	76.30	0.26,7	26,0	26,0	22,6	22,2	26,7	5,532	+1.35,98			76.32.0,98	G.
	α Cephei.....	237.5	2.11,5	10,7	11,0	5,8	8,2	11,0					237.7.9,53	G.
	β Cephei R. M. ...	84.25	2.16,9	16,9	17,6	12,7	14,1	17,0	5,488	+1.36,89			84.28.52,59	G.
	β Cephei.....	229.10	0.20,7	18,6	20,3	14,0	16,8	20,0					229.10.18,38	G.
Sept. 8	(f) Uranus	301.0	2.34,8	31,9	36,0	27,3	30,1	32,2					301.2.31,87	G.
Sept. 9	(g) ⊙ N.L. M.	293.20	2.37,8	36,1	38,1	32,1	34,6	35,9	10,970	-17,47			293.22.18,11	G.
	⊙ S.L.	293.50	4.8,1	6,9	10,6	4,3	4,8	6,9					293.54.6,63	G.
	Saturn N.L.	321.45	2.48,6	50,0	50,9	45,2	48,0	50,8					321.47.48,72	G.

(a) This was the more illumined limb.

(b) Extremely cloudy.

(c) Cloudy.

(d) Very cloudy.

(c) Extremely faint from clouds.

(f) Too much wind to-night for reflection observations.

(g) Without the dark glass, and unsatisfactory.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
35,74	- 13 . 9 . 29,14	29,984	61,0	56,5	13,49				24 . 37 . 25,65	+ 19,35	α Cephei R.
34,16	- 13 . 9 . 25,08								24 . 37 . 29,71		β Cephei.
	24 . 58 . 22,47			55,6	26,91				62 . 45 . 57,66	+ 23,76	β Pegasi R.
	24 . 58 . 23,37								62 . 45 . 58,56		β Pegasi.
	28 . 8 . 52,16	30,070	57,2	53,7					65 . 13 . 11,11)
	28 . 8 . 52,06								65 . 13 . 11,01)
	28 . 8 . 52,45				31,12	27 . 23,51		15 . 56,94	65 . 13 . 11,40)
	28 . 8 . 52,90								65 . 13 . 11,85)
	28 . 8 . 51,94								65 . 13 . 10,89)
	74 . 56 . 41,76	30,136	58,7	56,3	3 . 32,19	0,87	9,322	8,46	112 . 47 . 29,82		Saturn.
	49 . 43 . 17,51				1 . 8,34				87 . 31 . 34,13	+ 8,07	Σ 2369.
	44 . 28 . 19,30	30,096	66,4	69,0	55,39	5,93			82 . 0 . 24,14		\odot .
	43 . 56 . 33,98				54,38	5,87		15 . 52,90	82 . 0 . 23,67		\odot .
35,85	- 34 . 22 . 22,30	30,150	67,9		38,68				3 . 24 . 7,30	+ 15,97	δ Ursæ Min. R.
33,67	- 34 . 22 . 19,54								3 . 24 . 10,06		δ Ursæ Minoris.
	13 . 33 . 57,77				13,65				51 . 21 . 19,70	+ 15,62	α Lyrae R.
	13 . 33 . 56,16								51 . 21 . 18,09		α Lyrae.
	74 . 57 . 26,78				3 . 27,06	0,87	11,000	9,04	112 . 47 . 52,21		Saturn.
	49 . 43 . 19,11				1 . 6,66				87 . 31 . 34,05	+ 8,18	Σ 2369.
	75 . 20 . 35,13				3 . 32,57	1,83	12,169	21,24	113 . 10 . 52,91		Jupiter.
	45 . 16 . 42,35			67,6	57,22				83 . 4 . 47,85	+ 11,31	Σ 2449.
	54 . 7 . 24,20	30,170	64,8	63,3	1 . 18,99	0,36			91 . 55 . 51,11		Uranus.
33,93	23 . 58 . 57,34				25,47				61 . 46 . 31,09	+ 23,65	α Andromedæ R.
	23 . 58 . 56,25								61 . 46 . 30,00		α Andromedæ.
34,44	- 69 . 50 . 4,12				2 . 34,54				- 32 . 5 . 30,38	- 9,95	δ U. Maj. SP. R.
	- 69 . 50 . 4,19								- 32 . 5 . 30,45		δ Ursæ Maj. SP.
	46 . 51 . 13,05	30,134	65,7	65,6	1 . 0,66				84 . 39 . 21,99	+ 9,18	Σ 2375.
	75 . 20 . 2,80			65,1	3 . 34,01	1,83	8,129	20,90	113 . 11 . 4,16		Jupiter.
	45 . 16 . 41,83				57,48				83 . 4 . 47,59	+ 11,38	Σ 2449.
34,21	41 . 57 . 46,74	30,140	65,4	65,0	51,22				79 . 45 . 46,24	+ 15,30	γ Aquilæ R.
	41 . 57 . 46,23								79 . 45 . 45,73		γ Aquilæ.
33,58	65 . 12 . 23,32			63,7	2 . 3,04				103 . 1 . 34,64	+ 12,87	α^2 Capricorni R.
	65 . 12 . 21,55								103 . 1 . 32,87		α^2 Capricorni.
35,10	- 36 . 36 . 54,83				42,45				1 . 9 . 31,00	+ 19,66	λ Ursæ Min. R.
	- 36 . 36 . 53,57								1 . 9 . 32,26		λ Ursæ Minoris.
	54 . 8 . 19,68		61,4	59,5	1 . 19,56	0,36			91 . 56 . 47,16		Uranus.
	45 . 2 . 49,48	30,160	65,3	66,5	56,91	5,99		15 . 53,70	83 . 6 . 42,38		\odot .
	45 . 34 . 36,58				57,97	6,05			83 . 6 . 43,08		\odot .
	74 . 58 . 3,51	29,914	63,7	61,5	3 . 28,73	0,86	10,852	7,50	112 . 48 . 32,16		Saturn.
	49 . 43 . 19,35				1 . 7,13				87 . 31 . 34,76	+ 8,38	Σ 2369.
	41 . 36 . 4,61				50,55				79 . 24 . 3,44	+ 11,36	Σ 2408.
	75 . 21 . 5,58				3 . 34,27	1,81	12,095	20,46	113 . 11 . 25,86		Jupiter.
34,38	41 . 57 . 46,10			60,0	51,35				79 . 45 . 45,73	+ 15,63	γ Aquilæ R.
	41 . 57 . 45,93								79 . 45 . 45,56		γ Aquilæ.
33,85	46 . 10 . 36,30				59,48				83 . 58 . 44,06	+ 15,03	β Aquilæ R.
	46 . 10 . 35,05								83 . 58 . 42,81		β Aquilæ.
35,26	- 9 . 42 . 26,51			57,8	9,82				28 . 4 . 31,95	+ 23,45	α Cephei R.
	- 9 . 42 . 24,94								28 . 4 . 33,52		α Cephei.
35,49	- 17 . 39 . 18,12				18,27				20 . 7 . 31,89	+ 22,91	β Cephei R.
	- 17 . 39 . 16,09								20 . 7 . 33,92		β Cephei.
	54 . 12 . 57,40	29,550	56,6	55,3	1 . 18,90	0,36			92 . 1 . 24,22		Uranus.
	46 . 32 . 43,64	29,450	62,4	64,5	58,78	6,16		15 . 54,70	84 . 36 . 39,24		\odot .
	47 . 4 . 32,16				59,88	6,21			84 . 36 . 39,41		\odot .
	74 . 58 . 14,25	29,394	62,5	60,5	3 . 25,57	0,86	9,364	8,02	112 . 48 . 55,26		Saturn.

Coincidence of Micrometer Wire with fixed Wire = $10^{\circ}128, 10^{\circ}129, 10^{\circ}133, 10^{\circ}140, 10^{\circ}141$ at the five wires.

One Micrometer Revolution = $20''859$.

Correction for Runs = $-2''2$.

Adopted Zenith Point = $246^{\circ}49'33''71$. From Sept. 2 = $246^{\circ}49'34''47$.

Assumed Co-latitude = $37^{\circ}47'8''28$.

Month and Day.	NAME OF STAR or PLANET.	Pointer. " "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. "	Correction to Middle Wire. "	Concluded reading of Circle. " "	Observer.
			A	B	C	D	E	F						
Sept. 9	Σ 2400.	282.55	1.40,9	39,2	40,5	34,4	36,0	38,8					282.56.38,18	G.
	(a) Σ 2408.	288.25	0.40,0	39,0	40,0	35,2	36,8	38,3					288.25.38,17	G.
	Σ 2437 M.	280.0	2.39,0	39,5	40,0	34,8	36,0	39,1	4,058	+2.6,61	-2	+0,21	280.4.44,70	G.
	Jupiter N.L.	322.10	0.18,9	19,0	19,8	15,4	16,2	18,0					322.10.17,87	G.
	Σ 2499.	277.20	1.45,2	44,0	46,7	39,3	42,2	43,2					277.21.43,32	G.
	61 ¹ Cygni R. M.	52.35	1.17,0	17,4	17,5	13,4	13,7	18,3	11,032	-18,76			52.35.57,37	G.
	61 ¹ Cygni.	261.0	3.13,7	12,0	15,2	8,1	10,3	13,3					261.3.11,87	G.
	ζ Cygni R. M.	44.10	2.26,9	28,5	28,3	23,1	24,9	29,4	10,200	-1,40			44.12.25,27	G.
	ζ Cygni.	269.25	1.45,1	44,1	45,6	39,7	41,0	44,7					269.26.43,25	G.
	α Cephei R. M.	76.30	1.30,6	30,9	30,2	27,5	26,5	31,0	8,529	+33,46			76.32.2,79	G.
	α Cephei.	237.5	2.9,8	8,9	9,5	3,9	5,6	9,8					237.7.7,77	G.
	γ U. Maj. SP. R. M.	140.0	1.28,8	26,3	27,8	23,7	24,0	28,7	15,789	-1.57,99			139.59.28,46	G.
	γ Ursæ Maj. SP.	173.35	4.43,8	42,2	45,5	38,7	40,1	45,8					173.39.42,33	G.
	Uranus.	301.0	3.32,1	30,9	33,2	26,0	28,4	30,9					301.3.30,00	G.
Sept. 10	(b) ε Pegasi R. M.	23.45	2.20,4	20,0	22,4	15,0	17,8	21,1	10,441	-6,43			23.47.12,92	G.
	ε Pegasi.	289.50	1.58,1	57,1	59,1	53,2	53,0	56,9					289.51.56,15	G.
	α Aquarii R. M.	13.30	2.26,5	25,6	28,0	21,4	23,5	27,2	7,630	+52,21			13.33.17,46	G.
	α Aquarii.	300.5	0.53,8	50,9	53,0	47,1	46,8	51,1					300.5.50,42	G.
	ζ Cephei R. M.	72.0	1.27,0	25,4	26,9	21,9	22,0	25,9	7,040	+1.4,52			72.2.29,30	G.
	ζ Cephei.	241.35	1.43,9	39,8	42,2	36,9	38,0	42,8					241.36.40,52	G.
	ε Cephei R. M.	70.50	1.42,2	40,1	42,2	37,2	38,0	42,8	7,746	+49,94	+1	-0,22	70.52.30,05	G.
	ε Cephei.	242.45	1.41,9	37,9	40,1	34,6	35,6	40,9			+2	+0,90	242.46.39,32	G.
	Uranus.	301.0	4.27,9	24,1	29,5	20,4	21,3	26,9					301.4.24,82	G.
Sept. 12	⊙ S.L. M.	295.0	2.24,2	22,8	24,5	18,2	21,8	22,0	9,908	+4,69			295.2.26,82	G.
	⊙ N.L.	294.30	0.41,9	40,9	41,8	37,0	39,2	40,3					294.30.40,15	G.
	(c)) N.L. M.	324.25	4.35,3	33,0	36,1	28,5	33,2	35,2	9,638	+10,22	-2	-2,12	324.29.41,43	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,687	+9,21	-1	-1,06	324.29.41,48	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,742	+8,16			324.29.41,49	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,777	+7,57	+1	+1,06	324.29.41,96	G.
	) N.L. M. ....	...	...	...	...	...	...	...	9,869	+5,67	+2	+2,12	324.29.41,12	G.
	δ Ursæ Min. R. M.	101.10	2.25,1	25,0	26,8	21,0	24,9	25,8	11,503	-28,58			101.11.56,07	G.
	δ Ursæ Minoris.	212.25	2.16,4	14,8	16,2	12,0	14,1	16,9					212.27.14,97	G.
	α Lyrae R. M.	53.10	3.27,1	29,9	28,4	23,3	27,1	29,3	3,809	+2.11,91			53.15.39,26	G.
	α Lyrae.	260.20	3.31,0	28,0	31,1	25,0	28,3	30,7					260.23.28,85	G.
	Saturn S.L.	321.45	3.25,0	24,1	26,1	21,5	24,1	27,4					321.48.24,53	G.
	Σ 2400.	282.55	1.40,3	39,1	40,3	34,3	36,7	38,6					282.56.38,13	G.
	Σ 2408.	288.25	0.37,4	35,9	37,0	32,7	34,1	36,3			-2	+0,11	288.25.35,64	G.
	σ Sagittarii.	325.25	1.58,7	58,1	59,8	53,4	57,0	58,2					325.26.57,43	G.
	Σ 2437 M.	280.0	2.34,6	35,8	35,8	30,4	31,8	35,3	3,889	+2.10,14	-2	+0,21	280.4.44,18	G.
	Jupiter S.L.	322.10	0.60,0	58,7	61,0	55,9	57,8	58,6					322.10.58,62	G.
	* R. 18 ^h . 57 ^m . 4 ^s	275.50	4.12,2	10,9	13,8	6,8	9,5	12,2					275.54.10,70	G.
	Σ 2445 M.	275.50	4.12,2	10,9	13,8	6,8	9,5	12,2	5,461	+1.37,46			275.55.48,16	G.
	Σ 2466. np.	269.25	3.27,1	26,1	27,1	20,2	22,8	26,9					269.28.24,87	G.
	Σ 2486. sp.	249.25	3.23,7	20,9	23,1	16,5	19,0	23,0					249.28.20,88	G.
	Σ 2499 M.	277.15	4.20,0	17,0	21,4	13,1	17,2	20,0	3,119	+2.26,30			277.21.44,22	G.
	Σ 2500.	279.35	0.37,8	36,1	37,9	31,8	34,7	37,9					279.35.36,00	G.
	Σ 2504.	280.10	0.30,3	27,5	29,7	23,4	25,3	29,3			+1	+0,05	280.10.27,62	G.
	θ Cygni R. M.	64.25	1.35,4	35,9	36,2	30,4	34,5	36,0	4,314	+2.1,39			64.28.36,06	G.
	θ Cygni.	249.10	0.36,0	33,2	34,8	29,0	30,6	35,0					249.10.33,07	G.
	γ Aquilæ R. M.	24.50	1.31,0	30,2	32,6	25,8	29,7	31,3	9,185	+19,77			24.51.49,80	G.
	γ Aquilæ.	288.45	2.21,0	19,9	21,0	15,4	16,0	20,2					288.47.18,82	G.
	Uranus.	301.5	1.20,0	17,8	21,2	13,0	14,3	17,5					301.6.17,23	G.
Sept. 13	(d) ⊙ N.L. M.	294.50	2.44,7	45,8	46,7	41,0	43,7	43,3	7,693	+50,63			294.53.34,70	G.
	⊙ S.L.	295.25	0.27,0	26,8	28,0	23,1	24,7	25,2					295.25.25,78	G.
Sept. 14	⊙ S.L. M.	295.45	2.33,5	32,3	33,8	27,4	30,9	33,8	7,572	+53,15			295.48.24,98	G.
	⊙ N.L.	295.15	1.37,3	37,0	37,0	33,5	35,0	36,3					295.16.35,95	G.
	Saturn N.L.	321.45	3.20,6	20,8	21,8	17,8	20,0	23,0					321.48.20,52	G.

Runs taken Sept. 15, 9^h.Coincidence at the five wires taken Sept. 17, 2^h.

(a) Very cloudy.

(b) Mercury disturbed by the wind.

(c) Not full. Correction applied for defect of illumination
= -0",25.

(d) Badly defined.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N. P. D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
34,62	36. 7. 3,71	29,394	62,5	60,5	40,92	1,79	8,130	20,89	73. 54. 52,91	+12,75	Σ 2400.
	41. 36. 3,70				49,77				79. 24. 1,75	+11,56	Σ 2408.
	33. 15. 10,23				36,78				71. 2. 55,29	+14,47	Σ 2437.
	75. 20. 43,40			60,1	3. 31,06				113. 11. 41,84		Jupiter.
	30. 32. 8,85			59,6	33,15				68. 19. 50,28	+16,34	Σ 2499.
34,26	14. 13. 37,10	29,388	60,0	59,0	14,26	0,36			52. 0. 59,64	+26,50	61 ¹ Cygni R.
	14. 13. 37,40								52. 0. 59,94		61 ¹ Cygni.
	22. 37. 9,20				23,44				60. 24. 40,92	+23,94	ζ Cygni R.
35,28	22. 37. 8,78								60. 24. 40,50		ζ Cygni.
	-9. 42. 28,32				9,63				28. 4. 30,33	+24,39	α Cephei R.
35,40	-9. 42. 26,70								28. 4. 31,95		α Cephei.
	-73. 9. 53,99	29,366	57,0	56,0	3. 4,56				-35. 25. 50,27	-12,96	γ U. Maj. SP. R.
	-73. 9. 52,14				1. 18,35				-35. 25. 48,42		γ Ursæ Maj. SP.
	54. 13. 55,53								92. 2. 21,80		Uranus.
34,54	43. 2. 21,55	29,592	57,7	56,4	53,08				80. 50. 22,91	+23,63	ε Pegasi R.
	43. 2. 21,68								80. 50. 23,04		ε Pegasi.
33,94	53. 16. 17,01	29,570	57,0	56,0	1. 16,17				91. 4. 41,46	+23,77	α Aquarii R.
	53. 16. 15,95								91. 4. 40,40		α Aquarii.
34,91	-5. 12. 54,83				5,20				32. 34. 8,25	+24,92	ζ Cephei R.
	-5. 12. 53,95								32. 34. 9,13		ζ Cephei.
34,69	-4. 2. 55,58				4,03				33. 44. 8,67	+24,96	ε Cephei R.
	-4. 2. 55,15								33. 44. 9,10		ε Cephei.
	54. 14. 50,35	29,582	57,2	55,4	1. 19,06				92. 3. 17,33		Uranus.
35,52	48. 12. 52,35	29,774	60,0	60,1	1. 3,55	54. 20,58		15. 55,40	85. 45. 2,45		⊙.
	47. 41. 5,68				1. 2,38				85. 45. 5,46		⊙.
	77. 40. 6,96	29,866	59,3	57,6					114. 52. 22,28		⊙.
	77. 40. 7,01								114. 52. 22,33		⊙.
	77. 40. 7,02				4. 16,05				114. 52. 22,34		⊙.
34,06	77. 40. 7,49							15. 11,82	114. 52. 22,81		⊙.
	77. 40. 6,65								114. 52. 21,97		⊙.
	-34. 22. 21,60	29,876	58,7	57,2	39,24				3. 24. 7,44	+17,07	δ Ursæ Min. R.
34,57	-34. 22. 19,50					0,85	10,934	8,36	3. 24. 9,54		δ Ursæ Minoris.
	13. 33. 55,21				13,85				51. 21. 17,34	+16,76	α Lyræ R.
	13. 33. 54,38								51. 21. 16,51		α Lyræ.
	74. 58. 50,06				3. 30,48				112. 49. 19,61		Saturn.
	36. 7. 3,66			56,8	41,90				73. 54. 53,84	+12,95	Σ 2400.
	41. 36. 1,17				50,96				79. 24. 0,41	+11,74	Σ 2408.
	78. 37. 22,96				4. 37,63				116. 29. 8,87	+0,11	σ Sagittarii.
	33. 15. 9,71	29,890	57,4	56,4	37,70				71. 2. 55,69	+14,71	Σ 2437.
	75. 21. 24,15				3. 36,42				113. 11. 46,89		Jupiter.
	29. 4. 36,23				31,98				66. 52. 16,49	+15,84	* R. 18 ^h . 57 ^m . 4 ^s .
34,31	29. 6. 13,69				32,01	1,78	12,068	20,18	66. 53. 53,98	+15,89	Σ 2445.
	22. 38. 50,40				24,00				60. 26. 22,68	+17,47	Σ 2466. <i>np.</i>
	2. 38. 46,41				2,66				40. 25. 57,35	+20,57	Σ 2486. <i>sp.</i>
	30. 32. 9,75				33,92				68. 19. 51,95	+16,64	Σ 2499.
	32. 46. 1,53				37,01				70. 33. 46,82	+16,20	Σ 2500.
	33. 20. 53,15				37,84				71. 8. 39,27	+16,19	Σ 2504.
	2. 20. 58,41	29,896	57,7	55,7	2,36				40. 8. 9,05	+21,98	θ Cygni R.
	2. 20. 58,60								40. 8. 9,24		θ Cygni.
	41. 57. 44,67				51,77				79. 45. 44,72	+16,13	γ Aquilæ R.
	41. 57. 44,35								79. 45. 44,40		γ Aquilæ.
	54. 16. 42,76	29,962	54,7	52,7	1. 20,60	0,36			92. 5. 11,28		Uranus.
	48. 4. 0,23	30,066	60,6	61,7	1. 3,64	6,32		15. 55,70	86. 8. 1,53		⊙.
	48. 35. 51,31				1. 4,83	6,37			86. 8. 2,35		⊙.
	48. 58. 50,51	30,176	63,4	65,7	1. 5,43	6,41		15. 55,90	86. 31. 1,91		⊙.
	48. 27. 1,48				1. 4,22	6,36			86. 31. 3,52		⊙.
	74. 58. 46,05	30,164	62,2	60,8	3. 30,93	0,85	9,354	7,99	112. 49. 32,40		Saturn.

Coincidence of Micrometer Wire with fixed Wire = 10', 128, 10', 129, 10', 133, 10', 140, 10', 141 at the five wires. From

Sept. 13 = 10', 115, 10', 116, 10', 120, 10', 127, 10', 128.

One Micrometer Revolution = 20", 859.

Correction for Runs = -2", 2. From Sept. 10 = -1", 4.

Adopted Zenith Point = 246°. 49'. 34", 47.

Assumed Co-latitude = 37°. 47'. 8", 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	" "	" "	" "	" "	" "	" "	r.	" "		" "	° ' "	
Sept. 14	Jupiter S.L.	322. 10	0. 55,8	54,9	55,8	52,4	53,2	55,3					322. 10. 54,52	G.
	* R. 18 ^h . 57 ^m . 4 ^s ..	275. 50	4. 12,4	12,8	13,8	7,4	11,1	12,9					275. 54. 11,79	G.
	Σ 2445 M.	275. 50	4. 12,4	12,8	13,8	7,4	11,1	12,9	5,520	+ 1. 35,96	+2	+ 0,26	275. 55. 47,75	G.
	Σ 2466.	269. 25	3. 26,0	25,8	26,0	21,0	23,2	27,4					269. 28. 24,73	G.
	h ² Sagittarii	324. 10	1. 43,0	40,9	43,0	38,2	41,0	42,7					324. 11. 41,25	G.
	57 Sagittarii	318. 25	0. 52,0	50,7	52,0	46,4	49,0	51,1					318. 25. 50,17	G.
	) S.L. M.	319. 55	0. 4,8	3,9	5,3	0,2	2,5	3,8	8,416	+ 35,45	-2	- 5,20	319. 55. 33,67	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,561	+ 32,43	-1	- 2,60	319. 55. 33,25	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,683	+ 29,98			319. 55. 33,40	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,811	+ 27,46	+1	+ 2,60	319. 55. 33,48	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,927	+ 25,05	+2	+ 5,20	319. 55. 33,67	G.
	β ² Capricorni	314. 15	1. 25,3	25,2	25,0	19,8	23,0	25,1					314. 16. 23,83	G.
	ν Capricorni	317. 40	0. 51,8	49,4	52,3	46,0	48,7	50,6					317. 40. 49,77	G.
	α Cygni R. M.	59. 15	2. 61,0	59,3	62,2	56,0	59,9	61,3	3,329	+ 2. 21,65			59. 20. 21,47	G.
	α Cygni	254. 15	3. 47,3	44,3	47,4	40,9	44,7	47,3					254. 18. 45,15	G.
	η Cephei R. M.	75. 45	4. 25,3	23,1	26,0	19,0	23,2	26,5	6,684	+ 1. 11,68			75. 50. 35,33	G.
	η Cephei	237. 45	3. 37,0	33,5	35,2	30,2	32,8	36,4					237. 48. 34,02	G.
	α Aquarii R. M.	13. 30	2. 36,4	35,2	37,8	31,1	35,3	36,8	7,997	+ 44,29			13. 33. 19,61	G.
	α Aquarii	300. 5	0. 50,2	47,0	49,9	43,0	44,1	48,1					300. 5. 47,02	G.
	β Pegasi R. M.	41. 50	0. 41,4	40,2	41,5	37,2	39,3	42,8	8,469	+ 34,44			41. 51. 14,81	G.
	β Pegasi	271. 45	2. 55,0	53,0	57,1	48,6	51,1	54,1					271. 47. 53,02	G.
	Uranus.	301. 5	3. 10,7	8,9	12,5	3,3	5,9	8,9					301. 8. 8,22	G.
Sept. 15	Saturn N.L.	321. 45	3. 28,0	29,2	28,2	24,8	28,9	29,8					321. 48. 27,98	G.
	Σ 2400.	282. 55	1. 38,9	40,0	39,0	34,0	37,5	37,5					282. 56. 37,73	G.
	σ Sagittarii	325. 25	1. 58,1	59,9	58,9	55,8	59,2	58,2					325. 26. 58,27	G.
	Σ 2437 M.	280. 0	2. 17,0	20,2	19,9	15,0	17,4	19,0	3,123	+ 2. 25,95			280. 4. 43,93	G.
	Jupiter N.L.	322. 10	0. 11,9	12,8	12,3	10,9	13,2	12,0					322. 10. 12,17	G.
	* R. 18 ^h . 57 ^m . 4 ^s ..	275. 50	4. 11,1	13,1	13,5	7,6	12,2	12,2					275. 54. 11,42	G.
	Σ 2445 M.	275. 50	4. 11,1	13,1	13,5	7,6	12,2	12,2	5,526	+ 1. 35,83			275. 55. 47,25	G.
	Σ 2466.	269. 25	3. 25,7	27,1	25,9	20,1	23,8	26,1					269. 28. 24,62	G.
	Σ 2486. sp.	249. 25	3. 20,9	21,3	21,9	15,3	20,0	20,9					249. 28. 19,90	G.
	Σ 2499.	277. 20	1. 41,8	43,3	43,0	37,7	42,0	41,1					277. 21. 41,40	G.
	Σ 2504.	280. 10	0. 28,0	30,0	28,9	25,0	26,9	28,1					280. 10. 27,80	G.
	(a) α ¹ Capricorni R. M.	1. 35	1. 22,4	23,0	25,3	19,2	23,5	23,0	1,214	+ 3. 5,66	-2	+ 0,14	1. 39. 28,47	G.
	α ¹ Capricorni . . .	311. 55	4. 39,1	40,4	40,7	35,0	38,2	40,1			+2	- 0,14	311. 59. 38,56	G.
	(a) α ² Capricorni R. M.	1. 35	1. 22,4	23,0	25,3	19,2	23,5	23,0	7,630	+ 51,83	-2	+ 0,14	1. 37. 14,64	G.
	α ² Capricorni M.	311. 55	4. 39,1	40,4	40,7	35,0	38,2	40,1	3,616	+ 2. 15,83	2	- 0,14	312. 1. 54,39	G.
	β ² Capricorni	314. 15	1. 25,2	27,3	26,6	22,0	25,9	26,4					314. 16. 25,50	G.
	λ Ursæ Min. R. M.	103. 25	1. 26,0	25,8	24,6	21,7	23,8	26,1	9,853	+ 5,57			103. 26. 30,17	G.
	λ Ursæ Minoris ...	210. 10	2. 37,7	39,0	38,1	33,4	36,2	38,6					210. 12. 37,05	G.
	ν Capricorni	317. 40	0. 53,0	52,7	54,9	49,8	53,5	52,9					317. 40. 52,75	G.
	α Cygni R. M.	59. 15	3. 42,3	43,4	42,8	38,7	42,7	44,5	5,316	+ 1. 40,21			59. 20. 22,44	G.
	α Cygni	254. 15	3. 46,6	46,0	47,4	41,1	46,1	46,2					254. 18. 45,40	G.
	η Cephei R. M.	75. 45	3. 41,8	43,2	43,4	38,0	41,4	43,5	4,671	+ 1. 53,66			75. 50. 35,38	G.
	η Cephei	237. 45	3. 34,8	34,0	33,8	28,9	32,1	34,8					237. 48. 32,90	G.
	) S.L. M.	315. 55	4. 32,9	34,9	34,4	29,0	33,9	33,9	8,390	+ 35,98	-2	- 6,12	316. 0. 2,81	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,555	+ 32,56	-1	- 3,06	316. 0. 2,45	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,677	+ 30,09			316. 0. 3,04	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,830	+ 27,06	+1	+ 3,06	316. 0. 3,07	G.
	) S.L. M. ....	...	...	...	...	...	...	...	8,992	+ 23,71	+2	+ 6,12	316. 0. 2,78	G.
	s Capricorni.	314. 45	4. 11,2	13,0	13,5	7,3	12,0	13,2					314. 49. 11,50	G.
	Uranus.	301. 5	4. 7,0	7,2	8,9	1,4	3,6	5,6					301. 9. 5,43	G.
Sept. 16	⊙ S.L. M.	296. 30	4. 17,4	15,9	18,5	11,8	15,9	16,2	9,080	+ 21,69			296. 34. 37,44	G.
	⊙ N.L.	296. 0	2. 47,9	48,1	49,7	42,8	46,2	46,2					296. 2. 46,68	G.
	(b) Saturn N.L.	321. 45	3. 31,7	34,0	33,9	29,5	33,4	35,8					321. 48. 32,88	G.
	(c) Jupiter S.L.	322. 10	0. 47,7	48,1	48,6	44,9	47,8	48,1					322. 10. 47,50	G.
	17 Lyræ	266. 45	1. 22,9	23,2	24,0	18,9	20,9	23,5					266. 46. 22,17	G.
	(d) δ Aquilæ R. M.	17. 25	1. 16,9	19,1	17,4	12,9	15,8	16,8	10,000	+ 2,51			17. 26. 18,93	G.
	δ Aquilæ.	296. 10	2. 48,2	49,2	50,0	43,4	46,9	47,9					296. 12. 47,47	G.

(a) Unsteady.

(b) Extremely faint from clouds.

(c) Cloudy.

(d) Too near the fixed wire for a good bisection.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
33,31	75.21.20,05	30,164	62,2	60,5	3.36,55	1,77	12,099	20,64	113.11.42,47		Jupiter.
	29.4.37,32				32,01				66.52.17,61	+16,01	* R. 18 ^h . 57 ^m . 4 ^s .
	29.6.13,28				32,04				66.53.53,60	+16,07	Σ 2445.
	22.38.50,26				24,02				60.26.22,56	+17,67	Σ 2466.
	77.22.6,78	30,186	61,0	59,8	4.11,59				115.13.26,65	+4,90	h ² Sagittarii.
	71.36.15,70			59,0	2.51,91				109.26.15,89	+8,36	57 Sagittarii.
	73.5.59,20		60,4	58,3					109.49.14,72).
	73.5.58,78								109.49.14,30).
	73.5.58,93				3.8,05	52.7,64		14.53,17	109.49.14,45).
	73.5.59,01								109.49.14,53).
34,68	73.5.59,20								109.49.14,72).
	67.26.49,36				2.18,39				105.16.16,03	+12,51	β ² Capricorni.
	70.51.15,30		59,7	57,4	2.45,34				108.41.8,92	+13,48	ν Capricorni.
	7.29.13,00				7,62				45.16.28,90	+24,91	α Cygni R.
	7.29.10,68								45.16.26,58		α Cygni.
	-9.1.0,86								28.45.58,22	+26,27	η Cephei R.
	-9.1.0,45				9,20				28.45.58,63		η Cephei.
	53.16.14,86	30,172	58,0	54,5	1.17,95				91.4.41,09	+23,97	α Aquarii R.
	53.16.12,55								91.4.38,78		α Aquarii.
	24.58.19,66	30,166	57,4	54,8	27,12				62.45.55,06	+27,19	β Pegasi R.
33,92	24.58.18,55								62.45.53,95		β Pegasi.
	54.18.33,75	30,150	56,8	54,2	1.20,95	0,36			92.7.2,62		Uranus.
	74.58.53,51	30,118	61,6	61,5	3.30,35	0,85	9,290	8,66	112.49.39,95		Saturn.
	36.7.3,26				41,84				73.54.53,38	+13,13	Σ 2400.
	78.37.23,80				4.37,18				116.29.9,26	+0,04	σ Sagittarii.
	33.15.9,46			61,1	37,63				71.2.55,37	+14,93	Σ 2437.
	75.20.37,70				3.35,77	1,76	8,153	20,52	113.11.40,51		Jupiter.
	29.4.36,95				31,92				66.52.17,15	+16,08	* R. 18 ^h . 57 ^m . 4 ^s .
	29.6.12,78				31,95				66.53.53,01	+16,15	Σ 2445.
	22.38.50,15				23,95				60.26.22,38	+17,76	Σ 2466.
33,52	2.38.45,43				2,65				40.25.56,36	+20,99	Σ 2486. sp.
	30.32.6,93				33,86				68.19.49,07	+16,92	Σ 2499.
	33.20.53,33				37,77				71.8.39,38	+16,45	Σ 2504.
	65.10.6,00	30,106	60,6	59,8	2.3,65				102.59.17,93	+12,81	α ¹ Capricorni R.
	65.10.4,09								102.59.16,02		α ¹ Capricorni.
	65.12.19,83				2.3,86				103.1.31,97	+12,85	α ² Capricorni R.
	65.12.19,92								103.1.32,06		α ² Capricorni.
	67.26.51,03				2.17,60				105.16.16,91	+12,49	β ² Capricorni.
	-36.36.55,70				42,73				1.9.29,85	+22,98	λ Ursæ Min. R.
	-36.36.57,42								1.9.28,13		λ Ursæ Minoris.
33,61	70.51.18,28	30,114	60,9	59,6	2.44,23				108.41.10,79	+13,45	ν Capricorni.
	7.29.12,03								45.16.27,88	+25,13	α Cygni R.
	7.29.10,93				7,57				45.16.26,78		α Cygni.
	-9.1.0,91								28.45.58,23	+26,53	η Cephei R.
	-9.1.1,57				9,14				28.45.57,57		η Cephei.
	69.10.28,34								105.54.44,26).
	69.10.27,98								105.54.43,90).
	69.10.28,57				2.30,12	50.34,96		14.47,52	105.54.44,49).
	69.10.28,60								105.54.44,52).
	69.10.28,31				2.21,43				105.54.44,23).
33,92	67.59.37,03				1.20,47	0,36			105.49.6,74	+17,55	s Capricorni.
	54.19.30,96	30,088	58,7	56,4					92.7.59,35		Uranus.
	49.45.2,97	30,044	61,5	63,6	1.7,21	6,49		15.56,40	87.17.15,57		⊙.
	49.13.12,21				1.5,97	6,44			87.17.16,42		⊙.
	74.58.58,41	29,992	62,2	60,7	3.29,83	0,85	9,323	8,32	112.49.43,99		Saturn.
	75.21.13,03			60,3	3.35,38	1,76	12,060	20,23	113.11.34,70		Jupiter.
	19.56.47,70				20,78				57.44.16,76	+18,34	17 Lyræ.
	49.23.15,54			60,0	1.6,72				87.11.30,54	+12,63	δ Aquilæ R.
	49.23.13,00								87.11.28,00		δ Aquilæ.

Coincidence of Micrometer Wire with fixed Wire = 10', 115, 10', 116, 10', 120, 10', 127, 10', 128 at the five wires.

One Micrometer Revolution = 20", 859.

Correction for Runs = -1", 4.

Adopted Zenith Point = 246°. 49'. 34", 47.

Assumed Co-latitude = 37°. 47'. 8", 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			0	1	2	3	4	5						
Sept. 16	α^1 Capricorni R. M.	1.35	2.38,0	38,1	40,5	34,1	38,2	38,2	4,788	+1.51,13	-2	+0,14	1.39.29,00	G.
	α^1 Capricorni	311.55	4.39,8	38,9	40,8	34,0	38,2	40,2			+2	-0,14	311.59.38,29	G.
	α^2 Capricorni R. M.	1.35	2.38,0	38,1	40,5	34,1	38,2	38,2	11,325	-25,24	-2	+0,14	1.37.12,63	G.
	α^2 Capricorni M. . .	311.55	4.39,8	38,9	40,8	34,0	38,2	40,2	3,601	+2.16,15	+2	-0,14	312.1.54,44	G.
	λ Ursæ Min. R. M.	103.20	4.43,3	44,0	44,5	39,8	41,8	43,9	5,000	+1.46,81			103.26.29,48	G.
	λ Ursæ Minoris . . .	210.10	2.40,0	40,0	39,3	35,0	38,1	40,2					210.12.38,65	G.
	α Cygni R. M. . . .	59.15	3.38,9	38,0	39,2	34,3	38,1	40,8	5,132	+1.44,05			59.20.22,10	G.
	α Cygni	254.15	3.46,4	46,0	47,8	41,1	45,3	47,1					254.18.45,45	G.
	η Cephei R. M. . . .	75.45	3.39,8	40,0	41,7	35,9	38,9	41,1	4,542	+1.56,36			75.50.35,76	G.
	η Cephei	237.45	3.34,9	33,0	33,8	28,1	31,4	34,9					237.48.32,52	G.
	δ Capricorni	314.45	4.13,3	14,3	14,8	9,0	12,7	14,2					314.49.12,85	G.
	(a) δ S.L. M.	311.25	1.37,2	37,0	37,8	32,5	35,9	36,9	8,900	+25,34	-2	-6,72	311.26.54,77	G.
	δ S.L. M. . . . .	...	...	...	...	...	...	...	9,038	+22,49	-1	-3,36	311.26.55,28	G.
	δ S.L. M. . . . .	...	...	...	...	...	...	...	9,191	+19,38			311.26.55,53	G.
	δ S.L. M. . . . .	...	...	...	...	...	...	...	9,360	+16,00	+1	+3,36	311.26.55,51	G.
	δ S.L. M. . . . .	...	...	...	...	...	...	...	9,533	+12,41	+2	+6,72	311.26.55,28	G.
	θ Aquarii	307.30	4.22,3	21,9	23,9	17,0	20,2	22,9					307.34.21,17	G.
	Uranus	301.5	4.65,7	66,5	68,8	59,9	63,8	65,1					301.10.47,3	G.
Sept. 17	\odot N.L. M.	296.20	4.36,2	37,0	37,3	31,1	36,7	35,8	6,170	+1.22,39			296.25.57,86	G.
	\odot S.L.	296.55	2.52,0	52,9	53,3	47,9	51,2	51,0					296.57.51,25	G.
Sept. 19	\odot N.L. M.	297.10	1.50,7	48,8	50,8	44,4	47,8	47,8	8,251	+38,99			297.12.27,29	G.
	\odot S.L.	297.40	4.21,6	19,0	22,7	15,8	18,2	21,8					297.44.19,65	G.
	Saturn N.L.	321.45	3.51,8	51,1	54,4	47,4	51,2	52,6					321.48.51,23	G.
	(b) Jupiter N.L.	322.5	4.50,0	40,9	52,9	44,3	48,0	50,0					322.9.48,97	G.
	17 Lyræ	266.45	1.22,9	21,2	24,2	17,4	18,9	22,4					266.46.21,10	G.
	Σ 2500.	279.35	0.36,0	35,0	37,7	30,0	34,3	36,0					279.35.34,80	G.
	Σ 2504. <i>sf.</i>	280.10	0.29,1	27,7	29,7	22,8	25,3	27,9					280.10.27,07	G.
	Uranus M.	301.10	1.37,7	34,9	39,8	30,2	32,9	34,7	6,198	+1.21,71	-2	0,00	301.12.56,68	G.
	δ N.L. M.	295.25	3.45,6	43,0	48,2	38,4	41,3	43,3	8,910	+25,13	-2	-7,14	295.29.1,12	G.
	δ N.L. M. . . . .	...	...	...	...	...	...	...	9,078	+21,66	-1	-3,57	295.29.1,22	G.
	δ N.L. M. . . . .	...	...	...	...	...	...	...	9,240	+18,36			295.29.1,49	G.
	δ N.L. M. . . . .	...	...	...	...	...	...	...	9,433	+14,48	+1	+3,57	295.29.1,18	G.
	δ N.L. M. . . . .	...	...	...	...	...	...	...	9,631	+10,37	+2	+7,14	295.29.0,64	G.
	α Androm. R. M. . .	42.45	4.50,0	51,5	52,8	44,7	48,8	50,9	7,678	+50,93			42.50.40,50	G.
	α Andromedæ	270.45	3.30,4	27,8	30,4	23,0	25,5	29,5					270.48.27,60	G.
	d Piscium	291.40	2.18,0	15,9	18,7	11,8	13,1	16,9					291.42.15,63	G.
	α Ursæ Maj. R. M.	77.10	2.29,0	26,3	29,7	23,4	25,2	28,6	10,319	-4,16			77.12.22,76	G.
	α Ursæ Majoris . . .	236.25	1.50,0	47,6	49,9	43,0	47,0	47,7					236.26.47,45	G.
Sept. 20	(c) \odot S.L. M.	298.5	2.10,1	8,0	11,0	4,2	5,6	7,9	8,648	+30,93			298.7.38,63	G.
	\odot N.L.	297.35	0.48,4	47,0	48,5	42,6	44,0	45,8					297.35.46,02	G.
	Saturn S.L.	321.45	4.11,3	9,0	12,8	5,6	8,3	12,3					321.49.9,68	G.
	Jupiter S.L.	322.10	0.18,5	16,6	19,5	14,2	14,6	17,4					322.10.16,78	G.
	17 Lyræ	266.45	1.24,8	20,5	24,6	17,0	17,5	22,8					266.46.21,13	G.
	ψ Sagittarii	324.25	4.28,9	26,8	30,6	22,0	25,2	28,8					324.29.26,85	G.
	Σ 2500.	279.35	0.37,8	35,9	38,2	31,4	33,3	37,8					279.35.35,70	G.
	(d) Σ 2556.	277.5	2.42,4	39,7	44,0	34,9	38,2	40,0					277.7.39,73	G.
	α Aquilæ R. M. . . .	23.0	3.44,1	44,9	46,1	37,0	40,5	44,0	5,709	+1.32,24			23.5.14,84	G.
	α Aquilæ	290.30	3.55,6	54,0	56,6	48,1	50,2	53,9					290.33.52,88	G.
	(e) Σ 2600. <i>sp.</i>	276.55	1.9,9	6,5	11,1	2,9	6,4	7,4					276.56.7,32	G.
	Σ 2610. <i>sf.</i> M. . . .	263.50	3.41,2	39,0	42,8	33,8	36,0	41,4	5,621	+1.34,08			263.55.12,95	G.
	Σ 2613. <i>sf.</i>	288.40	2.24,8	22,1	25,5	17,2	19,0	22,6					288.42.21,75	G.
	(f) Σ 2619. <i>sp.</i>	251.10	2.28,4	24,5	28,0	19,2	22,3	26,7			+2	+0,67	251.12.25,40	G.
	(g) Σ 2643.	302.25	3.40,2	38,0	42,8	32,8	35,5	38,3					302.28.37,77	G.
	(h) Σ 2658. <i>np.</i>	246.20	3.41,3	36,1	41,8	32,2	33,8	39,8					246.23.37,33	G.
	α Cygni R. M.	59.15	4.36,4	35,4	36,4	31,1	32,9	37,6	7,778	+49,08			59.20.23,83	G.
	α Cygni	254.15	3.49,1	44,7	49,8	40,8	43,6	47,0					254.18.45,67	G.
	(i) \star R. 21 ^h . 25 ^m . . .	234.0	1.38,8	32,2	36,7	28,7	30,8	35,1					234.1.33,65	G.
	(k) Σ 2776. <i>p.</i>	310.0	0.18,7	16,9	19,0	12,2	13,9	15,8					310.0.16,07	G.

Runs and Coincidence at the middle wire taken Sept. 29, 21^h. The runs were found to be the same as those of Sept. 15.

- (a) Very faint from misty clouds.
 (b) Badly defined.
 (c) Very misty.
 (d) Not seen double: no star near this.
 (e) The companion is very minute.

- (f) The two stars are nearly equal.
 (g) Alone in the field.
 (h) A small companion.
 (i) Very faint: the following star was seen.
 (k) This is the bright preceding star.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,64	65. 10. 5,47	29,974	60,8	59,1	2. 3,29				102. 59. 17,04	+ 12,80	α^1 Capricorni R.
	65. 10. 3,82								102. 59. 15,39		α^1 Capricorni.
33,54	65. 12. 21,84				2. 3,50				103. 1. 33,62	+ 12,84	α^2 Capricorni R.
	65. 12. 19,97								103. 1. 31,75		α^2 Capricorni.
34,07	- 36. 36. 55,01				42,61				1. 9. 30,66	+ 23,24	λ Ursæ Min. R.
	- 36. 36. 55,82								1. 9. 29,85		λ Ursæ Minoris.
33,78	7. 29. 12,37				7,54				45. 16. 28,19	+ 25,35	α Cygni R.
	7. 29. 10,98								45. 16. 26,80		α Cygni.
34,14	- 9. 1. 1,29				9,11				28. 45. 57,88	+ 26,79	η Cephei R.
	- 9. 1. 1,95								28. 45. 57,22		η Cephei.
	67. 59. 38,38	29,964	59,8	58,2	2. 21,12				105. 49. 7,78	+ 17,53	δ Capricorni.
	64. 37. 20,30			57,9					101. 23. 4,35).
	64. 37. 20,81								101. 23. 4,86).
	64. 37. 21,06				2. 0,55	48. 40,86		14. 43,92	101. 23. 5,11).
	64. 37. 21,04								101. 23. 5,09).
	64. 37. 20,81								101. 23. 4,86).
	60. 44. 46,70			57,3	1. 42,37				98. 33. 37,35	+ 23,78	θ Aquarii.
	54. 20. 30,26	29,920	58,2	56,4	1. 20,07	0,36			92. 8. 58,25		Uranus.
	49. 36. 23,39	29,738	67,3	69,3	1. 5,45	6,47		15. 56,70	87. 40. 27,35).
	50. 8. 16,78				1. 6,68	6,53			87. 40. 28,51).
	50. 22. 52,82	29,554	62,0	61,9	1. 7,84	6,55		15. 57,20	88. 26. 59,59).
	50. 54. 45,18				1. 9,13	6,60			88. 26. 58,79).
	74. 59. 16,76	29,530	61,0	58,4	3. 27,64	0,84	9,320	8,35	112. 50. 0,19		Saturn.
	75. 20. 14,50			57,0	3. 33,27	1,74	8,224	19,78	113. 11. 14,09		Jupiter.
	19. 56. 46,63				20,60				57. 44. 15,51	+ 18,62	17 Lyræ.
	32. 46. 0,33				36,52				70. 33. 45,13	+ 16,76	Σ 2500.
	33. 20. 52,60				37,34				71. 8. 38,22	+ 16,74	Σ 2504. <i>sf.</i>
	54. 23. 22,21	29,514	56,3	53,6	1. 19,58	0,36			92. 11. 49,71		Uranus.
	48. 39. 26,65								86. 1. 59,87).
	48. 39. 26,75								86. 1. 59,97).
	48. 39. 27,02				1. 4,83	40. 23,78		14. 43,89	86. 2. 0,24).
	48. 39. 26,71								86. 1. 59,93).
	48. 39. 26,17								86. 1. 59,39).
34,05	23. 58. 53,97				25,41				61. 46. 27,66	+ 27,53	α Androm. R.
	23. 58. 53,13				56,82				61. 46. 26,82		α Andromedæ.
	44. 52. 41,16								82. 40. 46,26	+ 28,85	d Piscium.
35,11	- 10. 22. 48,29	29,472	59,0	58,8	10,34				27. 24. 9,65	- 19,21	α Ursæ Maj. R.
	- 10. 22. 47,02								27. 24. 10,92		α Ursæ Majoris.
	51. 18. 4,16	29,460	59,4	59,5	1. 10,21	6,64		15. 57,50	88. 50. 18,51).
	50. 46. 11,55				1. 8,89	6,59			88. 50. 19,63).
	74. 59. 35,21	29,448	55,6	53,0	3. 29,46	0,84	10,940	8,44	112. 50. 3,67		Saturn.
	75. 20. 42,31			52,4	3. 34,83	1,74	12,070	19,19	113. 11. 4,49		Jupiter.
	19. 56. 46,66				20,73				57. 44. 15,67	+ 18,71	17 Lyræ.
	77. 39. 52,38				4. 15,15				115. 31. 15,81	+ 2,38	ψ Sagittarii.
	32. 46. 1,23				36,76				70. 33. 46,27	+ 16,82	Σ 2500.
	30. 18. 5,26			51,2	33,46				68. 5. 47,00	+ 19,00	Σ 2556.
33,86	43. 44. 19,63				54,75				81. 32. 22,66	+ 16,49	α Aquilæ R.
	43. 44. 18,41								81. 32. 21,44		α Aquilæ.
	30. 6. 32,85				33,20				67. 54. 14,33	+ 20,21	Σ 2600. <i>sp.</i>
	17. 5. 38,48				17,62				54. 53. 4,38	+ 22,86	Σ 2610. <i>sf.</i>
	41. 52. 47,28				51,31				79. 40. 46,87	+ 17,93	Σ 2613. <i>sf.</i>
	4. 22. 50,93				4,39				42. 10. 3,60	+ 24,53	Σ 2619. <i>sp.</i>
	55. 39. 3,30			50,0	1. 23,81				93. 27. 35,39	+ 15,15	Σ 2643.
	- 0. 25. 57,14				0,43				37. 21. 10,71	+ 25,49	Σ 2658. <i>np.</i>
34,75	7. 29. 10,64		53,2	49,6					45. 16. 26,47	+ 26,15	α Cygni R.
	7. 29. 11,20				7,55				45. 16. 27,03		α Cygni.
	- 12. 48. 0,82	29,454	52,6	49,4	13,06				24. 58. 54,40	+ 27,37	* R. 21 ^h . 2 ^m . 25 ^s
	63. 10. 41,60				1. 53,20				100. 59. 43,08	+ 18,63	Σ 2776. <i>p.</i>

Coincidence of Micrometer Wire with fixed Wire = 10', 115, 10', 116, 10', 120, 10', 127, 10', 128 at the five wires. From
Sept. 20 = 10', 122, 10', 127, 10', 131, 10', 138, 10', 143.

One Micrometer Revolution = 20'', 859.

Correction for Runs = - 1'', 4.

Adopted Zenith Point = 246°. 49'. 34'', 47.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Sept. 20	α Cephei R. M....	76.30	0.26,0	24,4	26,0	21,6	20,5	25,6	5,257	+1.41,67			76.32. 5,67	G.
	α Cephei.....	237. 5	2. 8,8	5,4	8,8	0,9	2,8	7,3					237. 7. 5,57	G.
	λ Capricorni.....	311. 0	0.37,4	34,6	38,0	30,1	32,1	34,8					311. 5. 34,47	G.
	(a) * \mathcal{R} . 21 ^h . 43 ^m . 57 ^s .	280.25	4. 33,2	29,0	34,9	25,2	25,9	32,4					280.29.29,88	G.
	Σ 2834 M.....	280.25	4. 33,2	29,0	34,9	25,2	25,9	32,4	16,872	-2.20,60			280.27. 9,28	G.
	(b) Σ 2861. <i>nf</i>	278.55	4. 12,0	7,0	11,8	3,5	4,4	9,2					278.59. 7,78	G.
	Σ 2881. <i>np</i>	270.10	3.65,0	61,7	65,8	57,7	58,0	62,9					270.14. 1,67	G.
	ϵ Cephei.....	242.45	1.40,9	35,5	39,5	31,8	33,3	38,1					242.46.36,45	G.
	ρ Aquarii.....	307.35	1.64,0	60,8	65,6	56,9	57,7	62,0					307.37. 1,07	G.
	Piazzi XXXII. 219. <i>nf</i> .	304. 0	3.22,1	19,3	23,0	14,3	15,7	21,2					304. 3.19,12	G.
	(c) α U. Maj. SP. R. M.	131.55	3.18,5	17,8	20,0	13,9	13,3	19,1	8,610	+31,73			131.58.48,68	G.
	α Ursæ Majoris SP.	181.40	0.24,8	22,8	25,0	18,8	19,8	24,5					181.40.22,60	G.
	(d) Σ 3012.....	283.15	0.61,7	57,5	61,6	52,4	55,8	57,9					283.15.57,77	G.
	(d) Piazzi XXIII. 100.	241.20	1.28,5	24,1	27,7	19,7	22,8	27,1					241.21.24,92	G.
	Σ 3024. <i>sf</i>	256. 0	4.46,6	41,3	48,9	37,8	40,4	45,5			+1	+0,14	256. 4.43,34	G.
	λ Piscium.....	298. 5	1. 8,0	4,1	9,7	1,8	1,9	5,9					298. 6. 5,18	G.
	(e) γ U. Maj. SP. R. M.	140. 0	1.16,2	12,8	16,0	10,4	10,2	15,4	15,267	-1.47,15			139.59.26,30	G.
	γ Ursæ Majoris SP.	173.35	4.48,6	44,0	50,0	40,4	42,4	48,6					173.39.45,45	G.
	Uranus.....	301.10	3.57,1	53,0	59,5	48,6	51,5	54,1					301.13.53,78	G.
	(f) * \mathcal{R} . 23 ^h . 56 ^m . 4 ^s .	235.10	3.34,7	28,2	34,0	23,7	27,1	32,8					235.13.29,92	G.
	(g) Σ 19.....	263.15	1.37,0	30,6	38,2	27,2	30,0	34,9					263.16.32,92	G.
	Σ 24. <i>nf</i>	273.45	0.42,9	37,9	44,4	34,3	36,7	40,7					273.45.39,45	G.
	d Piscium.....	291.40	2.18,0	13,5	18,7	9,4	10,9	16,3					291.42.14,37	G.
	(h) η N.L. M.	290.15	3.69,3	62,1	70,9	59,2	61,9	66,2	8,604	+31,67	-2	-6,90	290.19.29,52	G.
	η N.L. M. ....	...	...	...	...	...	...	...	8,750	+28,73	-1	-3,45	290.19.30,03	G.
	η N.L. M. ....	...	...	...	...	...	...	...	8,903	+25,62			290.19.30,37	G.
	η N.L. M. ....	...	...	...	...	...	...	...	9,052	+22,66	+1	+3,45	290.19.30,86	G.
	η N.L. M. ....	...	...	...	...	...	...	...	9,239	+18,85	+2	+6,90	290.19.30,50	G.
	58 Piscium.....	287.50	4.31,0	26,0	32,4	22,9	24,5	30,4					287.54.27,65	G.
	(g) Σ 63.....	288. 0	2.59,0	51,8	59,4	51,0	51,2	56,1					288. 2.54,62	G.
	A.S.C. 93.....	285.55	0.31,6	26,9	32,4	23,0	24,8	29,0					285.55.27,93	G.
	(i) ϵ Piscium R. M....	21.35	2.21,1	17,1	21,0	13,4	15,2	18,8	1,014	+3.10,18			21.40.27,85	G.
	ϵ Piscium.....	291.55	3.45,6	40,3	46,9	37,8	38,1	44,6					291.58.42,05	G.
Sept. 21	Jupiter N.L.	322. 5	4.31,1	28,8	32,8	25,8	28,0	31,8					322. 9.29,50	G.
	ψ Sagittarii.....	324.25	4.32,2	29,1	33,8	25,2	29,3	32,3					324.29.30,10	G.
	α^1 Capricorni R. M.	1.35	2.32,8	30,4	34,5	26,9	31,0	31,8	4,484	+1.57,62	-2	+0,14	1.39.28,88	G.
	α^1 Capricorni.....	311.55	4.41,6	38,9	43,2	35,9	38,4	41,5			+2	-0,14	311.59.39,56	G.
	α^2 Capricorni R. M.	1.35	2.32,8	30,4	34,5	26,9	31,0	31,8	11,037	-19,08	-2	+0,14	1.37.12,18	G.
	α^2 Capricorni M....	311.55	4.41,6	38,9	43,2	35,9	38,4	41,5	3,635	+2.15,75	+2	-0,14	312. 1.55,31	G.
	ζ Cygni R. M....	44. 5	4.29,0	26,2	31,1	21,8	26,1	30,0	1,449	+3. 1,10			44.12.28,25	G.
	ζ Cygni.....	269.25	1.42,9	38,7	41,8	35,2	36,9	41,5					269.26.39,42	G.
	(k) Σ 2902.....	254.25	3.45,5	39,3	46,7	37,2	42,4	43,5					254.28.42,27	C.
	Uranus.....	301.10	4.53,8	51,3	56,5	44,9	48,7	51,3					301.14.50,85	C.
	(l) η N.L. M.	285.25	2.41,6	38,7	43,3	33,7	34,4	39,3	6,000	+1.25,99	-2	-6,42	285.28.57,95	C.
	η N.L. M. ....	...	...	...	...	...	...	...	6,136	+1.23,25	-1	-3,21	285.28.58,42	C.
	η N.L. M. ....	...	...	...	...	...	...	...	6,350	+1.18,87			285.28.57,25	C.
	η N.L. M. ....	...	...	...	...	...	...	...	6,513	+1.15,62	+1	+3,21	285.28.57,21	C.
	η N.L. M. ....	...	...	...	...	...	...	...	6,641	+1.13,05	+2	+6,42	285.28.57,85	C.
Sept. 22	(m) Jupiter S.L.....	322. 5	4.57,1	56,5	58,9	52,4	54,0	57,1					322. 9.55,77	G.
Sept. 24	β Pegasi R. M....	41.45	4.50,1	49,9	53,9	44,3	50,3	52,1	5,958	+1.27,05			41.51.16,93	G.
	β Pegasi.....	271.45	2.53,0	50,1	56,3	46,2	48,5	52,0					271.47.50,88	G.
	Σ 3012.....	283.15	0.60,8	56,0	61,3	52,8	56,3	58,1					283.15.57,50	G.
	(n) Σ 3013. <i>f</i> . M....	283.15	0.60,8	56,0	61,3	52,8	56,3	58,1	11,187	-22,03			283.15.35,47	G.
	Σ 3024. <i>sf</i>	256. 0	4.46,0	42,0	48,3	38,1	42,8	46,1					256. 4.43,67	G.
	γ Cephei R. M....	91.15	4.55,9	53,0	58,7	50,9	54,9	56,9	4,847	+1.50,22			91.21.45,04	G.
	γ Cephei.....	222.15	2.26,8	23,6	27,8	20,4	24,5	28,0					222.17.25,07	G.
	λ Piscium.....	298. 5	1. 8,0	5,0	9,8	1,5	4,0	7,1			+3	+0,02	298. 6. 5,87	G.
	Uranus.....	301.15	2.43,4	40,1	45,8	35,6	38,6	42,3					301.17.40,83	G.

(a) Extremely faint. A star precedes this about 20". (b) The two stars are not very unequal. (c) An unsteady blur. (d) Not seen double. (e) Unsteady. (f) Several stars near this. (g) Appeared single: no star near. (h) Good. (i) Disturbed mercury. (k) Seen double: observed as single. (l) Pretty good. (m) Very cloudy. (n) The components are nearly on the same parallel.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
35,62	- 9.42.31,20	29,454	52,6	49,4					28. 4. 27,24	+ 27,61	α Cephei R.
	- 9.42.28,90				9,84				28. 4. 29,54		α Cephei.
	64.16. 0,00				1. 58,70				102. 5. 6,98	+ 20,88	λ Capricorni.
	33.39.55,41				38,28				71. 27. 41,97	+ 26,31	* \mathcal{A} . 21 ^h . 43 ^m . 57 ^s .
	33.37.34,81				38,22				71. 25. 21,31	+ 26,32	Σ 2834.
	32. 9.33,31	29,448	52,2	49,2	36,15				69. 57. 17,74	+ 27,02	Σ 2861. <i>nf</i> .
	23.24.27,20				24,89				61. 12. 0,37	+ 27,90	Σ 2881. <i>np</i> .
	- 4. 2.58,02				4,07				33. 44. 6,19	+ 28,13	ϵ Cephei.
	60.47.26,60				1. 42,48				98. 36. 17,36	+ 23,98	ρ Aquarii.
	57.13.54,65			48,5	1. 29,22				95. 2. 22,15	+ 26,16	Piaz. xxii. 219. <i>nf</i> .
35,64	- 65. 9.14,21			48,3	2. 3,76				- 27. 24. 9,69	- 19,38	α U. Maj. SP. R.
	- 65. 9.11,87								- 27. 24. 7,35		α Ursæ Maj. SP.
	36.26.23,30			47,8	42,56				74. 14. 14,14	+ 28,53	Σ 3012.
	- 5.28. 9,55				5,52				32. 18. 53,21	+ 26,34	Piaz. xxiii. 100.
	9.15. 8,87				9,40				47. 2. 26,55	+ 27,54	Σ 3024. <i>sf</i> .
	51.16.30,71				1. 11,80				89. 4. 50,79	+ 28,60	λ Piscium.
	- 73. 9.51,83				3. 8,22				- 35. 25. 51,77	- 16,65	γ U. Maj. SP. R.
	- 73. 9.49,02					0,36			- 35. 25. 48,96		γ Ursæ Maj. SP.
	54.24.19,31				1. 20,59				92. 12. 47,62		Uranus.
	- 11.36. 4,55				11,84				26. 10. 51,89	+ 24,01	* \mathcal{A} . 23 ^h . 56 ^m . 4 ^s .
35,87	16.26.58,45			46,8	17,06				54. 14. 23,79	+ 26,76	Σ 19.
	26.56. 4,98				29,36				64. 43. 42,62	+ 27,72	Σ 24. <i>nf</i> .
	44.52.39,90				57,48				82. 40. 45,66	+ 28,93	d Piscium.
	43.29.55,05								80. 55. 37,11		γ .
	43.29.55,56								80. 55. 37,62		γ .
	43.29.55,90				54,79	37. 8,80		14. 46,99	80. 55. 37,96		γ .
	43.29.56,39								80. 55. 38,45		γ .
	43.29.56,03								80. 55. 38,09		γ .
	41. 4.53,18				50,34				78. 52. 51,80	+ 28,43	58 Piscium.
	41.13.20,15				50,59				79. 1. 19,02	+ 28,39	Σ 63.
34,95	39. 5.53,46				46,93				76. 53. 48,67	+ 28,06	A.S.C. 93.
	45. 9. 6,62				58,04				82. 57. 12,94	+ 28,60	ϵ Piscium R.
	45. 9. 7,58								82. 57. 13,90		ϵ Piscium.
	75.19.55,03	29,458	56,3	54,6	3. 33,73	1,73	8,211	20,03	113. 10. 55,34		Jupiter.
	77.39.55,63				4. 14,09				115. 31. 18,00	+ 2,36	ψ Sagittarii.
	65.10. 5,59	29,456	55,2	53,0	2. 2,68				102. 59. 16,55	+ 12,74	α^1 Capricorni R.
	65.10. 5,09								102. 59. 16,05		α^1 Capricorni.
	65.12.22,29				2. 2,89				103. 1. 33,46	+ 12,79	α^2 Capricorni R.
	65.12.20,84								103. 1. 32,01		α^2 Capricorni.
	22.37. 6,22	29,450	53,3	50,4	23,90				60. 24. 38,40	+ 26,13	ζ Cygni R.
33,84	22.37. 4,95								60. 24. 37,13		ζ Cygni.
	7.39. 7,80	29,448	51,6	48,8	7,73				45. 26. 23,81	+ 28,64	Σ 2902.
	54.25.16,38	29,442	50,8	48,2	1. 20,36	0,36			92. 13. 44,66		Uranus.
	38.39.23,48	29,432	49,9	47,0					76. 8. 17,86		γ .
	38.39.23,95								76. 8. 18,33		γ .
	38.39.22,78				46,16	33. 51,64		14. 51,58	76. 8. 17,16		γ .
	38.39.22,74								76. 8. 17,12		γ .
	38.39.23,38								76. 8. 17,76		γ .
	75.20.21,30	29,442	54,8	52,4	3. 34,70	1,72	11,986	19,35	113. 10. 43,21		Jupiter.
	24.58.17,54	29,444	52,3	49,6	26,75				62. 45. 52,57	+ 29,22	β Pegasi R.
33,91	24.58.16,41								62. 45. 51,44		β Pegasi.
	36.26.23,03				42,40				74. 14. 13,71	+ 29,07	Σ 3012.
	36.26. 1,00				42,39				74. 13. 51,67	+ 29,07	Σ 3013. <i>f</i> .
	9.15. 9,20				9,36				47. 2. 26,84	+ 28,64	Σ 3024. <i>sf</i> .
	- 24.32.10,57				26,23				13. 14. 31,48	+ 25,12	γ Cephei R.
	- 24.32. 9,40								13. 14. 32,65		γ Cephei.
	51.16.31,40				1. 11,53				89. 4. 51,21	+ 28,77	λ Piscium.
	54.28. 6,36				1. 20,28	0,36			92. 16. 34,56		Uranus.

Coincidence of Micrometer Wire with fixed Wire = 10',122, 10',127, 10',131, 10',138, 10',143 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = - 1'',4.

Adopted Zenith Point = 246°. 49'. 34''47.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			" "	" "	" "	" "	" "	" "						
Sept. 24	(a) * \mathcal{R} . 23 ^h . 56 ^m . 4 ^s .	235.10	3.31,0	26,0	31,1	21,9	26,0	31,4					235.13.27,73	G.
Sept. 26	☉ S.L. M.	300.25	2.32,8	30,3	33,9	26,4	30,3	31,2	9,023	+23,12			300.27.53,82	G.
	☉ N.L.	299.55	0.59,9	57,2	61,0	54,9	56,8	57,1					299.55.57,77	G.
	(b) Saturn N.L.	321.45	4.7,8	8,0	10,4	4,6	8,4	11,0					321.49.8,18	G.
	(c) Jupiter S.L.	322.5	3.57,2	55,8	59,8	52,6	55,5	58,5					322.8.56,38	G.
	(d) ♄ Sagittarii	324.25	4.26,9	24,0	28,8	20,1	26,2	28,7					324.29.25,58	G.
	♄ Aquilæ R. M.	17.20	4.51,1	51,0	54,9	45,6	51,0	53,4	5,800	+1.30,35			17.26.21,28	G.
	♄ Aquilæ R.	296.10	2.49,0	46,9	50,2	43,0	45,9	48,9					296.12.47,18	G.
	(e) * \mathcal{R} . 19 ^h . 20 ^m . 7 ^s ...	271.55	2.60,8	58,9	62,8	54,2	58,7	61,0					271.57.59,27	G.
	Σ 2525 M.	271.55	2.60,8	58,9	62,8	54,2	58,7	61,0	0,725	+3.16,20			272.1.15,47	G.
	θ Cygni R. M.	64.25	2.26,9	25,5	28,0	20,8	26,2	28,8	6,714	+1.11,28			64.28.37,20	G.
	θ Cygni	249.10	0.32,1	29,6	31,7	25,2	28,5	32,9					249.10.29,98	G.
	Σ 2576. np.	265.45	2.17,0	13,5	18,4	9,8	13,2	17,6					265.47.14,82	G.
	(f) * \mathcal{R} . 19 ^h . 52 ^m . 14 ^s .	266.10	0.20,3	16,4	21,6	13,5	16,1	19,7					266.10.17,92	G.
	(g) Σ 2606 M.	266.10	0.20,3	16,4	21,6	13,5	16,1	19,7	9,119	+21,11			266.10.39,03	G.
	(h) * \mathcal{R} . 19 ^h . 55 ^m . 47 ^s .	283.55	4.56,4	54,2	58,9	51,4	54,0	56,7					283.59.55,27	G.
	Σ 2618. np. M.	283.55	4.56,4	54,2	58,9	51,4	54,0	56,7	11,548	-29,56			283.59.25,71	G.
	(i) Σ 2651. sf.	283.20	0.18,8	14,6	18,8	10,8	15,1	17,3					283.20.15,88	G.
	(k) Σ 2659.	255.59	1.46,6	42,8	48,2	39,4	44,4	47,3					255.51.44,70	G.
	α Cephei R. M.	76.30	1.33,0	31,2	34,2	28,4	31,8	34,0	8,450	+35,07			76.32.7,10	G.
	α Cephei	237.5	1.66,8	63,6	66,8	58,9	62,4	66,3					237.7.4,03	G.
	(l) Σ 2815. sp.	242.10	0.63,9	58,0	62,5	54,1	57,8	61,3					242.10.59,55	G.
	λ Capricorni	311.5	0.35,0	31,1	36,4	28,0	32,7	34,1					311.5.32,87	G.
	(m) * \mathcal{R} . 21 ^h . 43 ^m . 57 ^s . sp.	280.25	4.35,8	31,4	38,0	27,9	31,8	37,0					280.29.33,43	G.
	Σ 2834.	280.25	4.35,8	31,4	38,0	27,9	31,8	37,0	17,090	-2.25,15			280.27.8,28	G.
	Σ 2861. nf.	278.55	4.8,5	4,1	10,8	0,0	4,9	7,6					278.59.5,80	G.
	Uranus.	301.15	4.35,2	31,7	37,9	27,0	32,0	35,4					301.19.32,98	G.
Sept. 27	(n) * \mathcal{R} . 21 ^h . 43 ^m . 57 ^s . sp.	280.25	4.32,6	28,0	34,3	24,8	28,9	34,1					280.29.30,23	G.
	Σ 2834 M.	280.25	4.32,6	28,0	34,3	24,8	28,9	34,1	16,955	-2.22,34			280.27.7,89	G.
	(o) ☉ S.L. M.	276.30	0.31,0	26,0	30,8	23,1	25,8	29,0	9,231	+18,59	-2	+3,90	276.30.50,09	G.
	☉ S.L. M. ....	...	...	...	...	...	...	...	9,190	+19,55	-1	+1,95	276.30.49,10	G.
	☉ S.L. M. ....	...	...	...	...	...	...	...	9,177	+19,89			276.30.47,49	G.
	☉ S.L. M. ....	...	...	...	...	...	...	...	9,091	+21,84	+1	-1,95	276.30.47,49	G.
Sept. 28	☉ S.L. M. ....	...	...	...	...	...	...	...	8,964	+24,60	+2	-3,90	276.30.48,30	G.
	(p) ☉ S.L. M.	301.15	0.33,0	32,8	35,1	28,3	28,2	32,5	12,489	-48,81	+3	-0,85	301.14.41,97	G.
Sept. 29	Jupiter N.L.	322.5	2.18,9	17,4	20,9	13,3	16,9	20,1					322.7.17,82	G.
	* \mathcal{R} . 19 ^h . 20 ^m . 7 ^s ...	271.55	2.62,9	61,5	66,1	56,3	61,5	63,0					271.58.1,75	G.
	Σ 2525 M.	271.55	2.62,9	61,5	66,1	56,3	61,5	63,0	0,833	+3.13,95			272.1.15,70	G.
	Σ 2576. np.	265.45	2.17,3	13,9	19,0	10,3	13,8	17,3					265.47.15,17	G.
	Σ 2610. sf.	263.55	0.11,6	8,2	12,9	4,8	8,8	11,8					263.55.9,67	G.
	Σ 2619. nf.	251.10	2.25,0	21,2	25,2	16,4	22,2	24,6					251.12.22,32	G.
	Regulus R. M.	27.20	2.22,4	21,2	22,1	16,0	19,3	22,8	12,449	-48,36			27.21.32,16	G.
	Regulus.	286.15	2.39,4	38,3	39,8	33,4	35,9	38,9			+2	+0,14	286.17.37,64	G.
	α Ursæ Maj. R. M.	77.5	4.55,9	53,3	58,3	50,1	53,2	55,8	3,212	+2.24,47	+1	-0,29	77.12.18,38	G.
	α Ursæ Majoris.	236.25	1.52,8	49,7	52,9	45,5	49,0	50,6			+2	+1,16	236.26.51,16	G.
Sept. 30	☉ S.L. M.	302.0	2.20,4	19,0	23,0	13,7	17,7	19,7	12,711	-53,82			302.1.25,00	G.
	☉ N.L.	301.25	4.28,6	27,5	31,0	22,1	26,3	28,0					301.29.27,03	G.
Oct. 1	☉ N.L. M.	301.50	3.26,2	25,0	28,4	20,9	23,6	26,3	11,880	-36,48			301.52.48,42	G.
	☉ S.L.	302.20	4.48,5	49,0	52,4	43,2	46,9	48,4					302.24.47,85	G.
	(d) Saturn N.L.	321.45	4.10,0	7,9	13,2	5,1	9,1	13,4					321.49.9,58	G.
	Jupiter N.L.	322.5	1.33,0	30,5	33,6	27,8	30,5	34,6					322.6.31,60	G.
Oct. 3	♄ Sagittarii	324.25	4.21,4	17,6	22,9	14,8	18,9	23,1					324.29.19,58	G.
	(q) ☉ N.L.	302.35	4.23,6	22,7	25,9	17,1	21,8	23,3					302.39.22,20	G.
	☉ S.L.	303.10	1.24,0	24,2	25,9	18,3	22,2	23,4					303.11.22,93	G.

Coincidences at the five wires taken Oct. 10, 22^h.

(a) So very faint that the bisection was doubtful. (b) Cloudy with great motion. (c) Faint from clouds. (d) Cloudy.
 (e) This star is rather fainter than Σ 2525 and precedes it about 1^s.5. (f) Preceding Σ 2606 12^s. (g) Seen double but very close; bisected as single.
 (h) No correction for Runs. (i) Very close. (k) This was set down 'nf,' with the remark, 'a minute companion precedes.' The star is triple, but probably the smaller of the two close stars was not seen. (l) The small component was visible by glimpses. (m) A very faint star; bisection doubtful. (n) Very faint. (o) 'Very cloudy and limb much broken.' S.L. was the more illumined limb. (p) Very cloudy and bad. (q) Extremely misty. N.L. came accidentally on the fixed wire.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
34,23	- 11.36. 6,74	29,444	52,3	49,6	11,80				26.10.49,74	+ 25,43	* R. 23 ^h . 56 ^m . 4 ^s .
	53.38.19,35	29,868	58,0	58,9	1.17,52	6,87		15.59,10	91.10.39,18		☉.
	53. 6.23,30				1.16,03	6,82			91.10.39,89		☉.
	74.59.33,71	29,944	56,2	55,0	3.32,11	0,83	9,321	8,45	112.50.21,72		Saturn.
	75.19.21,91			54,7	3.37,07	1,70	12,088	20,41	113. 9.45,15		Jupiter.
	77.39.51,11				4.18,21				115.31.17,60	+ 2,25	ψ Sagittarii.
	49.23.13,19			54,0	1. 7,42				87.11.28,89	+ 12,89	δ Aquilæ R.
	49.23.12,71								87.11.28,41		δ Aquilæ.
	25. 8.24,80				27,17				62.56. 0,25	+ 19,57	* R. 19 ^h . 20 ^m . 7 ^s .
	25.11.41,00				27,24				62.59.16,52	+ 19,57	Σ 2525.
33,59	2.20.57,27				2,38				40. 8. 7,93	+ 23,98	θ Cygni R.
	2.20.55,51								40. 8. 6,17	+ 23,98	θ Cygni.
	18.57.40,35				19,90				56.45. 8,53	+ 22,29	Σ 2576. np.
	19.20.43,45		54,6	52,6	20,39				57. 8.12,12	+ 23,14	* R. 19 ^h . 52 ^m . 14 ^s .
	19.21. 4,56				20,39				57. 8.33,23	+ 23,15	Σ 2606.
	37.10.20,80				44,01				74.58.13,09	+ 19,60	* R. 19 ^h . 55 ^m . 47 ^s .
	37. 9.51,24				44,00				74.57.43,52	+ 19,63	Σ 2618. np.
	36.30.41,41				42,97				74.18.32,66	+ 20,59	Σ 2651. sf.
	9. 2.10,23				9,24				46.49.27,75	+ 25,77	Σ 2659.
	- 9.42.32,63		53,1	51,4	9,96				28. 4.25,69	+ 29,17	α Cephei R.
35,56	- 9.42.30,44								28. 4.27,88	+ 29,17	α Cephei.
	- 4.38.34,92			51,0	4,73				33. 8.28,63	+ 29,63	Σ 2815. sp.
	64.15.58,40				2. 0,27				102. 5. 6,95	+ 20,74	λ Capricorni.
	33.39.58,96				38,79				71.27.46,03	+ 27,07	* R. 21 ^h . 43 ^m . 57 ^s .
	33.37.33,81				38,73				71.25.20,82	+ 27,09	Σ 2834.
	32. 9.31,33				36,62				69.57.16,23	+ 27,86	Σ 2861. nf.
	54.29.58,51	29,950	51,9	50,5	1.21,59	0,36			92.18.28,02		Uranus.
	33.39.55,76	29,950	52,0	50,4	38,84				71.27.42,88	+ 27,20	* R. 21 ^h . 43 ^m . 57 ^s .
	33.37.33,42				38,78				71.25.20,48	+ 27,21	Σ 2834.
	29.41.15,62	30,000	51,7	50,0					66.44.30,66)).
34,90	29.41.14,63								66.44.29,67)).
	29.41.13,02				33,34	28.35,53		15.51,05	66.44.28,06)).
	29.41.13,02								66.44.28,06)).
	29.41.13,83								66.44.28,87)).
	54.25. 7,50	30,056	53,7	53,4	1.21,15	6,94		15.59,60	91.57.30,39		☉.
	75.17.43,35	30,114	53,3	51,9	3.39,13	1,69	8,274	19,37	113. 8.48,44		Jupiter.
	25. 8.27,28			51,7	27,45				62.56. 3,01	+ 19,72	* R. 19 ^h . 20 ^m . 7 ^s .
	25.11.41,23				27,52				62.59.17,03	+ 19,72	Σ 2525.
	18.57.40,70			51,4	20,11				56.45. 9,09	+ 22,53	Σ 2576. np.
	17. 5.35,20	30,124	53,0	51,3	18,01				54.53. 1,49	+ 23,89	Σ 2610. sf.
34,77	4.22.47,85				4,49				42.10. 0,62	+ 25,80	Σ 2619. nf.
	39.28. 2,31	30,174	51,6	51,5	48,25				77.15.58,84	- 11,53	Regulus R.
	39.28. 3,17								77.15.59,70		Regulus.
	- 10.22.43,91	30,188	52,9	52,8	10,72				27.24.13,65	- 22,60	α Ursæ Maj. R.
	- 10.22.43,31								27.24.14,25		α Ursæ Majoris.
	55.11.50,53	30,176	54,4	54,8	1.23,61	7,01		16. 0,20	92.44.15,21		☉.
	54.39.52,56				1.21,99	6,96			92.44.16,07		☉.
	55. 3.14,19	30,220	53,0	53,0	1.23,60	7,00		16. 0,50	93. 7.39,57		☉.
	55.35.13,62				1.25,28	7,05			93. 7.39,63		☉.
	74.59.35,35	30,236	52,6	50,5	3.36,17	0,83	9,413	7,49	112.50.26,46		Saturn.
34,77	75.16.57,37			49,3	3.41,03	1,68	8,329	18,80	113. 8. 3,80		Jupiter.
	77.39.45,35				4.23,63				115.31.17,26	+ 2,16	ψ Sagittarii.
	55.49.47,97	30,042	53,8	54,3	1.25,32	7,07		16. 1,10	93.54.15,60		☉.
	56.21.48,70				1.27,04	7,12			93.54.15,80		☉.

Coincidence of Micrometer Wire with fixed Wire = 10',122, 10',127, 10',131, 10',138, 10',143 at the five wires. From

Oct. 3 = 10',127, 10',132, 10',136, 10',143, 10',148.

One Micrometer Revolution = 20'',859.

Correction for Runs = - 1'',4.

Adopted Zenith Point = 246°. 49'. 34'',47. From Oct. 1 = 246°. 49'. 34'',23.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Oct. 3	α Ursæ Maj. R. M.	77.10	1.13,8	11,9	16,5	9,2	11,2	14,5	7,011	+1. 5,19			77.12.17,99	G.
	α Ursæ Majoris...	236.25	1.55,8	52,2	56,2	47,3	52,1	54,1					236.26.52,87	G.
	γ Ursæ Maj. R. M.	69.10	1.19,8	17,1	20,6	13,3	16,9	19,5	11,692	-32,46			69.10.45,34	G.
	γ Ursæ Majoris...	244.25	3.28,0	23,7	27,9	19,6	24,2	26,4					244.28.24,80	G.
Oct. 4	\odot S.L. M.....	303.30	3.30,5	28,0	33,0	24,0	28,3	30,8	6,984	+1. 5,75			303.34.34,68	G.
	\odot N.L.	303. 0	2.37,0	35,4	39,4	31,5	35,2	36,4					303. 2.35,70	G.
	Uranus.....	301.25	1.52,9	51,4	56,0	46,1	49,3	52,0					301.26.51,27	G.
	α Andromedæ R.M.	42.50	1.32,0	32,2	33,7	25,2	31,1	33,9	12,344	-46,06			42.50.45,27	G.
	α Andromedæ	270.45	3.26,0	23,9	27,3	17,8	21,2	26,1					270.48.23,68	G.
	γ Pegasi R. M.	28.50	4.24,0	23,4	26,8	16,8	21,3	26,1	4,693	+1.53,53			28.56.16,55	G.
	γ Pegasi.....	284.40	2.54,0	53,8	57,3	47,9	50,4	55,0					284.42.53,03	G.
	α Ursæ Maj. R. M.	77.10	1.41,5	39,4	43,2	34,6	38,8	40,9	8,324	+37,80			77.12.17,52	G.
	α Ursæ Majoris...	236.25	1.56,0	52,3	56,3	47,8	52,0	54,3					236.26.53,10	G.
	γ Ursæ Maj. R. M.	69.10	1.28,1	25,9	29,7	21,1	25,8	27,9	12,121	-41,40			69.10.45,00	G.
	γ Ursæ Majoris...	244.25	3.29,0	25,0	29,9	20,2	26,1	28,2					244.28.26,37	G.
Oct. 5	(a) \odot N.L. M.....	303.25	2.29,1	27,1	31,8	22,9	28,0	28,6	15,167	-1.44,95			303.25.42,95	G.
	(a) \odot S.L.	303.55	2.45,9	43,5	48,0	38,1	42,4	44,1					303.57.43,63	G.
	(b) Polaris SP. R. M.	106. 5	2.22,8	19,9	23,8	15,3	19,7	19,9	9,420	+14,94	+0,34		106. 7.35,50	G.
	(b) Polaris SP.	207.30	1.38,8	36,3	38,0	30,9	36,4	36,5			-0,44		207.31.35,69	G.
	(b) Polaris SP. R. M.	106. 5	1.39,8	37,6	40,1	31,9	36,7	37,0	7,528	+54,32	+3,85		106. 7.35,34	G.
	(b) Polaris SP.	207.30	1.42,3	40,7	43,2	34,1	40,3	40,0			-4,16		207.31.35,92	G.
	η Ursæ Maj. R. M.	64.40	2.20,0	19,0	21,2	13,6	16,8	19,3	8,820	+27,46			64.42.45,76	G.
	η Ursæ Majoris ...	248.55	1.24,9	22,6	25,6	17,4	23,0	23,9					248.56.22,88	G.
	(c) Arcturus R. M....	34.35	1.30,9	29,8	31,0	23,8	28,0	30,9	6,969	+1. 6,07			34.37.35,12	G.
	Arcturus.....	279. 0	1.34,5	32,5	34,8	27,8	30,9	31,9					279. 1.32,05	G.
	Saturn N.L.	321.45	4. 7,3	7,1	10,8	2,5	7,3	9,9					321.49. 7,45	G.
	Jupiter N.L.	322. 0	4.52,0	52,0	56,1	48,2	53,1	55,0					322. 4.52,68	G.
	(d) * R. 19 ^h . 20 ^m . 7 ^s ..	271.55	2.55,8	55,3	59,8	49,4	54,7	55,8	0,494	+3.21,12			271.57.55,10	G.
	(d) Σ 2525. M.	271.55	2.55,8	55,3	59,8	49,4	54,7	55,8					272. 1.16,22	G.
	* R. 19 ^h . 55 ^m . 47 ^s ..	283.55	4.56,1	56,1	60,3	49,4	55,5	57,4					283.59.55,75	G.
	Σ 2618. np. M.	283.55	4.56,1	56,1	60,3	49,4	55,5	57,4	11,538	-29,24			283.59.26,51	G.
Oct. 6	(a) \odot S.L. M.....	304.15	4.33,9	33,8	35,9	27,9	33,1	33,3	6,398	+1.17,98			304.20.50,91	G.
	(a) \odot N.L.	303.45	3.50,7	50,0	52,9	45,2	49,7	49,9					303.48.49,70	G.
	(e) Piazzixxii.219.nf.	304. 0	3.17,9	17,4	20,9	12,3	15,2	19,7					304. 3.17,20	G.
	β Pegasi R. M.	41.45	3.45,0	43,5	47,7	38,4	44,2	46,4	2,721	+2.34,66			41.51.18,83	G.
	β Pegasi.....	271.45	2.49,7	48,8	53,0	42,8	46,5	49,8					271.47.48,40	G.
	(f) Σ 3012.....	283.15	0.57,0	55,1	58,0	49,2	53,2	55,4					283.15.54,63	G.
	Piazzixxiii.100.	241.20	1.21,8	18,4	21,8	13,8	17,1	22,1					241.21.19,15	G.
	Σ 3024. sf.	256. 0	4.40,8	39,6	43,7	33,9	38,9	42,0					256. 4.39,77	G.
	γ Cephei R. M.	91.15	4.42,0	40,5	45,2	35,8	40,8	43,9	3,981	+2. 8,38			91.21.49,70	G.
	γ Cephei.....	222.15	2.23,3	21,1	24,2	15,8	20,4	24,9					222.17.21,60	G.
	λ Piscium.....	298. 5	0.64,2	63,8	67,3	59,1	61,3	64,9					298. 6. 3,42	G.
	Uranus.	301.25	3.39,3	37,9	41,5	31,9	36,9	39,4					301.28.37,78	G.
	(g) Σ 3062.....	241.25	3.44,2	40,9	45,0	34,8	41,6	44,1					241.28.41,73	G.
	γ Pegasi R. M.	28.50	4.33,3	32,9	35,8	26,5	32,2	36,1	5,157	+1.43,86			28.56.16,61	G.
	γ Pegasi.....	284.40	2.52,8	50,0	55,4	44,9	49,5	53,0					284.42.50,90	G.
	(h) Σ 25.....	283.50	4.23,2	20,3	25,6	14,9	21,2	24,1					283.54.21,50	G.
Oct. 7	\odot N.L. M.....	304.10	3.24,5	23,3	26,3	18,4	21,9	24,0	14,532	-1.31,71			304.11.51,32	G.
	\odot S.L.	304.40	3.55,2	55,9	58,4	50,4	55,4	55,7					304.43.55,13	G.
Oct. 8	(f) \odot S.L. M.....	305. 5	3.45,7	45,3	49,2	41,2	45,1	45,9	15,614	-1.54,27			305. 6.51,10	G.
	(a) Jupiter S.L.	322. 0	3.60,8	59,9	63,1	56,8	60,8	63,5					322. 4. 0,78	G.
	η Lyrae R. M.	53.25	3.46,8	45,2	48,4	41,6	46,9	48,9	6,749	+1.10,66			53.29.56,93	G.
	η Lyrae.....	260. 5	4.10,7	8,8	13,0	4,5	10,1	12,6					260. 9. 9,90	G.
Oct. 10	(i) Σ 25.....	283.50	4.19,6	18,6	22,9	12,6	19,2	20,9					283.54.18,92	G.
	κ Draco. SP. R. M.	123.50	4.26,6	25,2	29,8	20,9	25,3	27,4	5,721	+1.32,09			123.55.57,91	G.
	κ Draconis SP.	189.40	3.11,8	10,5	15,0	6,1	9,9	13,9					189.43.11,17	G.

Runs taken Oct. 10, 22^h.Oct. 5, 9^h. Molyneux fast on Hardy, 22^h, 0.

- (a) Badly defined. (b) Times of observation by Molyneux, 13^h.6^m.58^s, 13^h.7^m.20^s, 13^h.13^m.0^s, and 13^h.13^m.20^s.
 (c) Unsteady. (d) Extremely cloudy and doubtful. (e) The η of the two close stars. (f) Cloudy.
 (g) Not seen double. (h) Bisected as single, not being distinctly seen double. No other star was near. (i) Faint; not seen double.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
35,43	-10.22.43,76	30,050	50,4	50,2	10,73				27.24.13,79	-23,92	α Ursæ Maj. R.
	-10.22.41,86								27.24.16,19		α Ursæ Majoris.
35,07	-2.21.11,11			52,0	2,40				35.25.54,77	-20,70	γ Ursæ Maj. R.
	-2.21.9,43								35.25.56,45		γ Ursæ Majoris.
	56.45.0,45	30,054	52,3	52,5	1.28,68	7,15		16.1,40	94.17.28,86		☉.
	56.13.1,47				1.26,91	7,11			94.17.30,95		☉.
	54.37.17,04	30,100	48,0	45,1	1.23,29	0,36			92.25.48,25		Uranus.
34,48	23.58.48,96				26,36				61.46.23,60	+30,41	α Andromedæ R.
	23.58.49,45								61.46.24,09		α Andromedæ.
34,79	37.53.17,68				46,10				75.41.12,06	+30,18	γ Pegasi R.
	37.53.18,80								75.41.13,18		γ Pegasi.
35,31	-10.22.43,29	30,162		46,4	10,85				27.24.14,14	-24,25	α Ursæ Maj. R.
	-10.22.41,13								27.24.16,30		α Ursæ Majoris.
35,69	-2.21.10,77		49,0	48,1	2,43				35.25.55,08	-21,03	γ Ursæ Maj. R.
	-2.21.7,86								35.25.57,99		γ Ursæ Majoris.
	56.36.8,72	30,164	50,0	50,8	1.28,81	7,14		16.1,70	94.40.40,37		☉.
	57.8.9,40				1.30,63	7,18			94.40.39,43		☉.
35,60	-39.18.1,27			51,8	47,92				-1.31.40,91	+20,88	Polaris SP. R.
	-39.17.58,54								-1.31.38,18		Polaris SP.
35,63	-39.18.1,11				47,92				-1.31.40,75	+20,88	Polaris SP. R.
	-39.17.58,31								-1.31.37,95		Polaris SP.
34,32	2.6.48,47				2,16				39.53.58,91	-12,72	η Ursæ Maj. R.
	2.6.48,65								39.53.59,09		η Ursæ Majoris.
33,59	32.11.59,11		51,8	52,5	36,83				69.59.44,22	-11,87	Arcturus R.
	32.11.57,82								69.59.42,93		Arcturus.
	74.59.33,22			50,7	3.35,55	0,82	9,398	7,70	112.50.23,93		Saturn.
	75.15.18,45			50,5	3.39,53	1,66	8,330	18,84	113.6.23,44		Jupiter.
	25.8.20,87				27,56				62.55.56,71	+19,97	* R.19 ^m .20 ^h .7 ^s .
	25.11.41,99				27,63				62.59.17,90	+19,97	Σ 2525.
	37.10.21,52		49,4		44,62				74.58.14,42	+20,03	* R.19 ^h .55 ^m .47 ^s .
	37.9.52,28				44,61				74.57.45,17	+20,06	Σ 2618. np.
	57.31.16,68	30,256	53,7	55,4	1.31,39	7,21		16.1,90	95.3.47,24		☉.
	56.59.15,47				1.29,55	7,17			95.3.48,03		☉.
33,62	57.13.42,97	30,258	51,3	49,2	1.31,53				95.2.22,78	+26,16	Piazzii xxii. 219.
	24.58.15,40				27,51				62.45.51,19	+31,29	β Pegasi R.
	24.58.14,17				43,65				62.45.49,96		β Pegasi.
	36.26.20,40		48,7		5,66				74.14.12,33	+30,44	Σ 3012.
	-5.28.15,08				9,64				32.18.47,54	+31,46	Piazzii xxiii. 100.
	9.15.5,54				27,00				47.2.23,46	+31,74	Σ 3024. sf.
35,65	-24.32.15,47				1.13,63				13.14.25,81	+29,51	γ Cephei R.
	-24.32.12,63				1.23,21	0,36			13.14.28,65	+29,13	γ Cephei.
	51.16.29,19	30,252	50,3	48,5	5,54				89.4.51,10	+29,93	λ Piscium.
	54.39.3,55				46,01				92.27.34,68		Uranus.
	-5.20.52,50				44,68				32.26.10,24	+29,93	Σ 3062.
33,76	37.53.17,62								75.41.11,91	+30,38	γ Pegasi R.
	37.53.16,67								75.41.10,96	+30,37	γ Pegasi.
	37.4.47,27								74.52.40,23		Σ 25.
	57.22.17,09	30,224	54,5	55,0	1.30,85	7,21		16.2,20	95.26.51,21		☉.
	57.54.20,90				1.32,73	7,25			95.26.52,46		☉.
	58.17.16,87	30,372	54,6	55,5	1.34,47	7,28		16.2,50	95.49.49,84		☉.
	75.14.26,55	30,412	55,0	53,7	3.39,65	1,64	11,964	19,07	113.4.53,77		Jupiter.
33,42	13.19.37,30				13,94				51.6.59,52	+21,26	η Lyræ R.
	13.19.35,67								51.6.57,89		η Lyræ.
	37.4.44,69	30,366	53,2	50,8	44,64				74.52.37,61	+30,75	Σ 25.
34,54	-57.6.23,68				1.31,13				-19.20.46,53	-23,20	κ Draco. SP. R.
	-57.6.23,06								-19.20.45,91		κ Draconis SP.

Coincidence of Micrometer Wire with fixed Wire = 10',127, 10',132, 10',136, 10',143, 10',148 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = -1'',4. From Uranus Oct. 4 = -0'',3.

Adopted Zenith Point = 246°. 49'. 34'',23.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
		° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	° ' "	
Oct. 10	α Cassiopeiae R. M.	70.15	3.15,0	13,4	16,7	9,0	11,8	16,7	12,671	-52,88			70.17.20,85	G.
	α Cassiopeiae.....	243.20	1.49,6	47,8	51,4	42,1	47,4	48,9			+1	+0,22	243.21.48,07	G.
	58 Piscium.....	287.50	4.24,6	23,7	27,4	18,1	22,8	25,9					287.54.23,70	G.
	65 Piscium. <i>sf.</i> ...	272.10	0.34,0	31,9	34,7	25,4	31,2	33,7					272.10.31,82	G.
	Piazzi O. 208.....	287.5	0.35,8	35,2	37,9	31,5	35,2	36,7			+2	+0,13	287.5.35,51	G.
	A.S.C. 93.....	285.55	0.24,9	23,2	26,3	17,2	22,8	24,1					285.55.23,08	G.
	(a) Polaris R. M.....	103.0	3.22,8	23,9	26,7	19,0	22,8	25,9	7,118	+1.2,96		-1,94	103.4.24,50	G.
	(a) Polaris.....	210.30	4.45,9	44,9	50,0	39,7	45,0	48,3				+1,69	210.34.47,27	G.
	Polaris R. M.....	103.0	4.44,5	45,4	48,9	40,9	44,3	47,2	11,151	-21,17			103.4.23,98	G.
	Polaris.....	210.30	4.47,3	46,9	51,5	41,4	46,8	49,3					210.34.47,15	G.
Oct. 11	ξ Androm. R. M...	59.15	4.24,8	22,8	27,1	18,9	24,3	27,7	10,629	-10,28			59.19.13,94	G.
	ξ Andromedæ....	254.15	4.55,4	53,0	59,3	48,1	55,5	56,1					254.19.54,52	G.
	\odot N.L. M.....	305.40	2.21,8	18,9	21,2	15,0	17,3	21,0	7,557	+53,80			305.43.12,98	G.
	\odot S.L.....	306.15	0.18,8	16,4	19,0	13,3	18,7	19,5					306.15.17,62	G.
	(b) Polaris SP. R. M..	106.5	1.16,9	14,0	17,7	9,6	13,9	14,2	6,410	+1.17,64		+1,88	106.7.33,89	G.
	(b) Polaris SP.....	207.30	1.42,1	41,6	42,8	35,4	40,5	40,5				-2,13	207.31.38,34	G.
	Jupiter S.L.....	322.0	1.46,9	46,6	49,8	41,9	44,5	47,9			+3	-0,56	322.1.45,69	G.
	Uranus.....	301.30	3.47,1	46,1	50,5	40,6	43,9	48,5					301.33.46,08	G.
	(c) α Androm. R. M..	42.45	4.22,1	20,0	25,0	15,4	21,2	24,8	6,082	+1.24,56			42.50.45,93	G.
	α Andromedæ....	270.45	3.23,2	21,9	24,8	15,3	18,3	24,0					270.48.21,22	G.
Oct. 13	α Delphini R. M..	29.55	3.42,6	40,2	44,5	35,0	40,7	43,9	8,159	+41,24			29.59.22,36	G.
	α Delphini.....	283.35	4.47,4	45,9	51,0	40,4	44,6	49,1					283.39.46,35	G.
	α Cygni R. M.....	59.15	4.46,5	43,1	48,8	38,7	43,6	47,1	8,108	+42,52	+1½	-0,34	59.20.26,76	G.
	α Cygni.....	254.15	3.42,8	39,4	44,9	34,5	39,7	42,8			+2	+0,60	254.18.41,25	G.
	η Cephei R. M....	75.45	3.20,1	18,2	23,6	14,5	18,3	22,7	3,311	+2.22,36			75.50.41,89	G.
	η Cephei.....	237.45	3.29,7	26,8	31,0	22,7	26,5	30,8					237.48.27,88	G.
	Σ 2738. <i>nf.</i>	283.10	1.34,5	30,3	35,1	25,1	29,8	33,0					283.11.31,28	G.
	(d) 59 Cygni.....	252.5	2.27,2	24,1	28,0	18,7	22,2	27,7					252.7.24,63	G.
	θ Capricorni.....	316.50	0.52,0	49,9	54,7	47,1	50,8	52,7					316.50.51,18	G.
	(e) * Δ . 21 ^h . 2 ^m . 25 ^s ..	234.0	1.28,9	24,3	28,8	19,8	24,5	28,7					234.1.25,82	G.
	δ Capricorni.....	314.45	4.9,8	8,5	12,8	2,7	8,8	11,0					314.49.8,90	G.
	α Cephei R. M....	76.25	4.24,7	22,9	27,6	18,8	22,1	26,3	2,143	+2.46,72			76.32.10,40	G.
	α Cephei.....	237.5	1.61,8	60,0	63,0	54,6	59,6	62,2					237.7.0,18	G.
	) S.L. M.....	312.50	2.52,2	50,2	55,2	45,9	49,3	52,9	10,488	-7,53	-2	-6,50	312.52.36,89	G.
	) S.L. M.....	...	...	...	...	...	...	...	10,681	-11,45	-1	-3,25	312.52.36,22	G.
	) S.L. M.....	...	...	...	...	...	...	...	10,817	-14,21			312.52.36,71	G.
	) S.L. M.....	...	...	...	...	...	...	...	10,979	-17,45	+1	+3,25	312.52.36,72	G.
	) S.L. M.....	...	...	...	...	...	...	...	11,119	-20,25	+2	+6,50	312.52.37,17	G.
	ξ Aquarii.....	307.30	3.53,6	51,9	57,3	46,3	51,3	53,9					307.33.52,35	G.
	μ Capricorni.....	313.15	2.22,0	20,0	24,8	15,3	20,6	22,8					313.17.20,90	G.
	(f) Σ 2881. <i>np.</i>	270.10	3.56,9	53,6	60,3	49,8	52,7	57,0					270.13.55,02	G.
Oct. 18	ϵ Cephei.....	242.45	1.31,1	27,8	31,7	22,0	27,7	31,9					242.46.28,68	G.
	ρ Aquarii.....	307.35	1.57,5	56,8	60,7	51,1	55,3	57,6					307.36.56,48	G.
	\odot S.L. M.....	308.50	1.55,8	56,7	58,3	50,2	55,4	55,4	11,787	-34,44			308.51.20,83	G.
	\odot N.L.....	308.15	4.13,7	14,1	16,4	8,9	12,7	14,1					308.19.13,25	G.
	α Cephei R. M....	76.25	4.44,9	41,8	49,4	37,2	41,9	45,0	3,011	+2.28,79			76.32.12,07	G.
	α Cephei.....	237.5	1.61,8	59,3	63,9	53,9	58,8	61,7					237.6.59,87	G.
	β Cephei R. M....	84.25	2.23,9	22,3	27,0	17,4	20,1	24,9	5,273	+1.41,61			84.29.4,18	G.
	β Cephei.....	229.10	0.6,7	4,9	9,8	0,0	4,5	6,7					229.10.5,43	G.
	ϵ Pegasi R. M....	23.45	0.23,1	21,4	26,9	15,9	20,4	24,5	4,622	+1.55,19			23.47.17,22	G.
	ϵ Pegasi.....	289.50	1.53,2	51,2	55,9	46,6	47,7	52,1					289.51.51,08	G.
Oct. 19	ϵ Cephei R. M....	70.50	1.44,1	42,0	47,3	38,0	40,9	45,0	7,350	+58,28			70.52.41,13	G.
	ϵ Cephei.....	242.45	1.31,6	27,5	32,0	22,4	26,4	30,6					242.46.28,38	G.
	ρ Aquarii.....	307.35	1.60,7	59,9	64,6	53,7	57,0	60,7					307.36.59,40	G.
	Uranus.....	301.35	4.19,9	18,0	24,5	11,8	16,0	20,2					301.39.18,33	G.

Molyneux fast on Hardy, Oct. 10, 26^h.4. Oct. 11, 27^h.0.Runs taken Oct. 21, 23^h. Coincidence at the middle wire taken, Oct. 28, 23^h.(a) Times of observation by Molyneux, 0^h.58^m.25^s and 0^h.58^m.50^s.(b) Times of observation by Molyneux, 13^h.10^m.27^s and 13^h.10^m.50^s.

(c) Cloudy.

(d) One companion north, and another preceding on the same parallel.

(e) Extremely faint.

(f) Very close.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.													
			Attach.	Free.																				
"	"	Inch.	"	"	"	"	"	"	"	"	"													
34,46	- 3. 27. 46,62	30,366	53,2	50,8	3,58				34. 19. 18,08	+ 29,34	α Cassiopeiae R. α Cassiopeiae. 58 Piscium. 65 Piscium. <i>sf</i> . Piazzi O. 208. A.S.C. 93.													
				51,77	34. 19. 18,54				+ 30,18															
	48,1			28,15	78. 52. 49,52				+ 30,15															
				50,31	63. 8. 34,02				+ 30,10															
				48,26	78. 3. 59,87				+ 30,01															
35,88	- 36. 14. 50,27				43,55				1. 31. 34,46	+ 23,03	Polaris R. Polaris.													
				43,55	1. 31. 37,77				+ 23,03															
35,57	- 36. 14. 49,75				43,55				1. 31. 34,98	+ 23,03	Polaris R. Polaris.													
					1. 31. 37,65				+ 23,03															
34,23	7. 30. 20,29				7,83				45. 17. 36,40	+ 27,32	ξ Andromedæ R. ξ Andromedæ.													
	7. 30. 20,29				45. 17. 36,40				+ 27,32															
36,12	58. 53. 38,75	30,304	54,5	56,0	1. 36,42	7,34		16. 3,30	96. 58. 19,41	+ 23,18	\odot . \odot . Polaris SP. R. Polaris SP.													
				1. 38,47	96. 58. 19,46				+ 23,18															
				47,74	- 1. 31. 39,12							+ 23,18												
					- 1. 31. 35,35								+ 23,18											
33,58	75. 12. 11,46	30,226	53,3	51,4	3. 38,79	1,62	12,051	19,80	113. 2. 37,11	+ 31,77	Jupiter. Uranus. α Andromedæ R. α Andromedæ.													
	54. 44. 11,85	30,234	52,3	49,3	1. 23,29				92. 32. 43,06			+ 31,77												
	23. 58. 48,30			26,25	61. 46. 22,83				+ 31,77															
	23. 58. 46,99				61. 46. 21,52																			
34,36	36. 50. 11,87	30,204	52,0	50,4	44,05				74. 38. 4,20	+ 23,23	α Delphini R. α Delphini.													
	36. 50. 12,12								74. 38. 4,45			+ 23,23												
34,01	7. 29. 7,47				7,73				45. 16. 23,48	+ 29,49	α Cygni R. α Cygni.													
	7. 29. 7,02								45. 16. 23,03			+ 29,49												
34,88	- 9. 1. 7,66				9,34				28. 45. 51,28	+ 32,17	η Cephei R. η Cephei. Σ 2738. <i>nf</i> . 59 Cygni. θ Capricorni. * R. 21 ^h . 2 ^m . 25 ^s . δ Capricorni. α Cephei R. α Cephei.													
	- 9. 1. 6,35				43,30				28. 45. 52,59			+ 32,17												
	36. 21. 57,05				5,46				74. 9. 48,63				+ 24,82											
	5. 17. 50,40				2. 40,41				43. 5. 4,14					+ 30,96										
	70. 1. 16,95				13,37				107. 51. 5,64						+ 14,95									
35,29	- 12. 48. 8,41				13,37				24. 58. 46,50	+ 32,46	μ Capricorni. Σ 2881. <i>np</i> . ϵ Cephei. ρ Aquarii.													
	67. 59. 34,67			49,3	2. 24,87				105. 49. 7,82			+ 16,46												
	- 9. 42. 36,17				10,09				28. 4. 22,02				+ 32,84											
	- 9. 42. 34,05								28. 4. 24,14					+ 32,84										
	66. 3. 2,66								102. 48. 7,43						+ 20,56									
	66. 3. 1,99								102. 48. 6,76							+ 19,96								
	66. 3. 2,48				2. 11,99				102. 48. 7,25								+ 31,56							
	66. 3. 2,49								102. 48. 7,26									+ 34,20						
	66. 3. 2,94								102. 48. 7,71										+ 23,50					
	60. 44. 18,12				1. 44,87				98. 33. 11,27											+ 20,56				
	66. 27. 46,67				2. 14,63				104. 17. 9,58												+ 19,96			
	23. 24. 20,79				25,55				61. 11. 54,62													+ 31,56		
	- 4. 5. 5,55				4,18				33. 43. 58,55														+ 34,20	
	60. 47. 22,25				1. 45,18				98. 36. 15,71															+ 23,50
35,97	62. 1. 46,60	29,340	55,6	55,9	1. 45,99	7,58		16. 5,20	99. 34. 28,09		\odot . \odot .													
	61. 29. 39,02				1. 43,66				99. 34. 28,61			+ 33,82												
34,81	- 9. 42. 37,84	29,434	46,5	41,2	10,00				28. 4. 20,44	+ 33,82	α Cephei R. α Cephei.													
	- 9. 42. 34,36								28. 4. 23,92			+ 34,47												
34,15	- 17. 39. 29,95	29,442	43,3	40,6	18,60				20. 7. 19,73	+ 26,21	β Cephei R. β Cephei.													
	- 17. 39. 28,80								20. 7. 20,88			+ 26,21												
34,76	43. 2. 17,01				54,60				80. 50. 19,89	+ 35,44	ϵ Pegasi R. ϵ Pegasi. ϵ Cephei R. ϵ Cephei. ρ Aquarii. Uranus.													
	43. 2. 16,85								80. 50. 19,73			+ 35,44												
	- 4. 3. 6,90				4,15				33. 43. 57,23				+ 23,25											
	- 4. 3. 5,85				1. 44,30				33. 43. 58,28					+ 23,25										
	60. 47. 25,17				1. 23,22				98. 36. 17,75															
	54. 49. 44,10	29,456	42,7	38,8		0,36			92. 38. 15,24															

Coincidence of Micrometer Wire with fixed Wire = 10', 127, 10', 132, 10', 136, 10', 143, 10', 148 at the five wires. From Oct. 19 = 10', 135, 10', 137, 10', 144, 10', 151, 10', 155.

One Micrometer Revolution = 20'', 859.

Correction for Runs = - 0'', 3. From Oct. 18 = - 0'', 5.

Adopted Zenith Point = 246°. 49'. 34'', 23.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Oct. 19	(a) N.L. M.	282. 30	4. 48,6	45,0	53,9	39,8	44,4	48,7	9,783	+ 7,34	-2	- 5,90	282. 34. 48,09	G.
	» N.L. M. ....	...	...	...	...	...	...	...	9,907	+ 4,80	-1	- 2,95	282. 34. 48,50	G.
	» N.L. M. ....	...	...	...	...	...	...	...	10,067	+ 1,61			282. 34. 48,26	G.
Oct. 20	⊙ S.L. M.	309. 30	4. 40,3	39,1	45,6	34,6	38,2	40,3	10,004	+ 2,92			309. 34. 42,52	G.
	⊙ N.L.	309. 0	2. 37,4	37,0	40,0	31,3	34,1	36,9					309. 2. 36,07	G.
	β Pegasi R. M. ...	41. 50	1. 27,9	27,9	31,3	22,3	25,9	30,4	10,363	- 4,76	-2	- 0,31	41. 51. 22,53	G.
	β Pegasi	271. 45	2. 48,1	45,1	53,9	40,3	43,3	48,1			-1	+ 0,08	271. 47. 46,50	G.
	η Piscium R. M. ...	29. 5	3. 39,7	40,4	45,2	34,4	37,7	42,1	7,104	+ 1. 3,41			29. 9. 43,26	G.
	η Piscium	284. 25	4. 28,2	25,9	32,8	21,0	23,7	29,9					284. 29. 26,85	G.
	51 Androm. R. M. ...	62. 20	4. 28,2	27,8	32,4	22,7	25,8	31,0	3,491	+ 2. 18,77			62. 26. 46,69	G.
	51 Andromedæ ...	251. 10	2. 26,5	21,5	29,0	16,2	20,1	26,0					251. 12. 23,18	G.
	γ Androm. R. M. ...	56. 5	2. 32,5	32,4	37,0	27,0	30,3	34,5	88,940	+ 3. 53,70			56. 11. 25,93	G.
	γ Andromedæ ...	257. 25	2. 45,6	41,6	49,5	36,5	39,5	45,3					257. 27. 42,95	G.
	» N.L. M.	278. 45	1. 30,4	26,5	32,9	21,5	24,9	29,1	9,323	+ 16,94	-2	- 4,82	278. 46. 39,65	G.
	» N.L. M. ....	...	...	...	...	...	...	...	9,430	+ 14,75	-1	- 2,41	278. 46. 39,87	G.
	» N.L. M. ....	...	...	...	...	...	...	...	9,525	+ 12,92			278. 46. 40,45	G.
Oct. 21	⊙ N.L. M.	309. 20	3. 39,5	37,0	43,6	32,3	36,3	39,7	9,056	+ 22,70			309. 24. 0,70	G.
	⊙ S.L.	309. 55	1. 11,7	9,0	14,9	6,0	8,2	10,2					309. 56. 9,98	G.
	α Cygni R. M. ...	59. 15	2. 24,2	21,9	27,3	17,1	22,2	26,1	1,340	+ 3. 3,64			59. 20. 26,74	G.
	α Cygni	254. 15	3. 41,2	38,5	45,9	34,1	39,7	42,3					254. 18. 40,22	G.
	4 Aquarii	305. 10	3. 17,1	15,3	21,4	12,1	14,7	19,2					305. 13. 16,58	G.
	59 Cygni	252. 5	2. 26,4	23,9	29,0	18,9	22,1	26,8					252. 7. 24,48	G.
	(b) Σ 2776.	310. 0	0. 12,3	11,4	15,8	7,2	9,5	12,8					310. 0. 11,50	G.
	α Cephei R. M. ...	76. 30	0. 17,1	16,6	21,0	12,4	14,9	18,3	4,712	+ 1. 53,31			76. 32. 10,03	G.
	α Cephei	237. 5	1. 58,9	57,1	61,9	52,0	56,8	59,2					237. 6. 57,62	G.
	β Aquarii R. M. ...	8. 20	2. 21,9	21,0	26,9	16,7	20,7	23,4	8,601	+ 32,18			8. 22. 53,91	G.
	β Aquarii	305. 15	1. 14,8	12,5	17,9	8,8	11,3	14,5					305. 16. 13,28	G.
	Uranus	301. 40	0. 46,6	44,5	50,9	40,4	42,2	46,3			+2	- 0,05	301. 40. 45,08	G.
	(c) Σ 51.	282. 30	1. 45,9	43,2	49,5	38,0	42,1	45,1					282. 31. 43,93	G.
	* R. 0 ^h . 38 ^m . 41 ^s .	287. 20	1. 9,6	8,9	13,0	3,8	6,9	11,8					287. 21. 8,98	G.
	(c) Σ 63.	288. 0	2. 52,8	49,0	56,7	45,8	48,4	54,1					288. 2. 51,08	G.
	β U. Min. SP. R. M. ...	119. 45	2. 17,0	17,9	22,8	13,0	14,7	18,6	9,533	+ 12,75			119. 47. 30,05	G.
	β Ursæ Min. SP. ...	193. 50	1. 41,0	38,8	45,5	33,8	33,1	42,3					193. 51. 39,88	G.
	» N.L. M.	275. 55	1. 24,0	20,2	28,2	15,1	20,8	23,1	9,704	+ 8,99	-2	- 3,28	275. 56. 27,59	G.
	» N.L. M. ....	...	...	...	...	...	...	...	9,790	+ 7,24	-1	- 1,64	275. 56. 27,48	G.
	» N.L. M. ....	...	...	...	...	...	...	...	9,862	+ 5,88			275. 56. 27,76	G.
Oct. 24	(d) Σ 2882.	262. 0	3. 45,1	43,4	50,8	38,2	43,3	47,0			-2	+ 0,45	262. 3. 45,02	G.
	α U. Maj. SP. R. M. ...	131. 55	3. 50,8	50,9	55,7	45,9	49,3	54,5	9,848	+ 6,18			131. 58. 57,30	G.
	α Ursæ Majoris SP. ...	181. 40	0. 11,1	10,0	15,4	5,2	8,5	14,0					181. 40. 10,70	G.
	Uranus	301. 40	2. 54,6	53,7	60,0	47,6	52,8	57,0			+2	- 0,05	301. 42. 54,18	G.
	γ Pegasi R. M. ...	28. 50	4. 34,8	35,5	39,0	28,0	33,0	38,4	5,210	+ 1. 42,92			28. 56. 17,62	G.
	γ Pegasi	284. 40	2. 50,6	48,3	54,8	42,8	47,2	51,1					284. 42. 49,08	G.
	Σ 19.	263. 15	1. 25,4	22,9	29,6	18,0	22,7	27,1					263. 16. 24,27	G.
	α Cassiopeiae R. M. ...	70. 15	1. 31,4	30,9	36,0	27,2	30,3	35,8	7,629	+ 52,46			70. 17. 24,36	G.
	α Cassiopeiae ...	243. 20	1. 46,9	42,9	49,8	37,4	42,2	46,9					243. 21. 44,32	G.
	(e) Σ 51. np.	282. 30	1. 44,8	42,8	49,7	36,5	42,2	45,8					282. 31. 43,60	G.
	* R. 0 ^h . 38 ^m . 41 ^s .	287. 20	1. 10,9	9,8	14,4	4,7	8,4	13,0					287. 21. 10,18	G.
Oct. 26	⊙ S.L. M.	311. 40	1. 17,9	17,0	21,7	12,4	16,8	19,3	10,715	- 11,91			311. 41. 5,61	G.
	⊙ N.L.	311. 5	3. 56,0	55,0	60,9	49,2	54,9	56,9					311. 8. 55,48	G.
	(c) Σ 2889.	273. 30	2. 9,5	8,8	14,0	2,6	8,3	9,9					273. 32. 8,85	G.
	ρ Aquarii	307. 35	1. 60,0	60,8	65,1	54,5	59,6	62,1					307. 37. 0,35	G.
	* R. 22 ^h . 19 ^m . 24 ^s .	284. 40	1. 25,8	23,2	30,0	18,5	23,5	26,8					284. 41. 24,63	G.
	(f) Σ 2905 M.	284. 40	1. 25,8	23,2	30,0	18,5	23,5	26,8	13,714	- 1. 14,47			284. 40. 10,16	G.
	Uranus	301. 40	4. 15,4	15,3	21,0	9,3	14,5	18,2			+2	- 0,05	301. 44. 13,90	G.
	(g) Σ 19 M.	263. 15	2. 19,9	20,0	25,2	14,9	19,0	23,7	12,792	- 55,24			263. 16. 25,21	G.
	(h) Σ 24. nf.	273. 45	0. 33,0	33,0	38,4	27,0	32,6	35,0					273. 45. 33,17	G.

Runs taken Oct. 28, 23^h.

(a) Badly defined. (b) The small double-star followed. (c) Not seen double: no star near. (d) Apparently not seen double: the observer thought a very minute companion preceded. (e) The following is a minute star. (f) This follows the preceding star 5' and was thought by the observer to be double. (g) Much clouded. (h) The wind was too strong for reflection observations this evening.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
	35.45.13,86 35.45.14,27 35.45.14,03	29,492	40,3	37,3					73.16.9,08 73.16.9,49 73.16.9,25)).)).)).
	62.45.8,29 62.13.1,84 24.58.11,70 24.58.12,27	29,574 29,670	44,4 41,7	44,3 39,3	1.52,79 1.50,28 27,53	7,64 7,60		14.58,30 16.5,70	100.17.56,02 100.17.58,50 62.45.47,51 62.45.48,08		⊙. ⊙. β Pegasi R. β Pegasi.
34,52	37.39.50,97 37.39.52,62	29,680	39,4	37,0	45,86				75.27.45,11 75.27.46,76	+33,17 +29,51	η Piscium R. η Piscium.
35,06	4.22.47,54 4.22.48,95				4,55				42.10.0,37 42.10.1,78	+28,36	51 Androm. R. 51 Andromedæ.
34,94	10.38.8,30 10.38.8,72				11,16				48.25.27,74 48.25.28,16	+26,53	γ Androm. R. γ Andromedæ.
34,44	31.57.5,42 31.57.5,64 31.57.6,22	29,686	38,3	35,5				15.4,93	69.30.50,77 69.30.50,99 69.30.51,57)).)).)).
	62.34.26,47 63.6.35,75 7.29.7,49 7.29.5,99	29,836 29,894	42,7 42,0	43,3 40,3	1.53,16 1.55,78 7,81	7,63 7,66		16.6,00	100.39.26,28 100.39.26,15 45.16.23,58 45.16.22,08		⊙. ⊙. α Cygni R. α Cygni.
33,48	58.23.42,35 5.17.50,25 63.10.37,27				1.36,35 5,51 1.57,20				96.12.26,98 43.5.4,04 100.59.42,75	+30,11 +17,41 +31,75 +17,82	4 Aquarii. 59 Cygni. Σ 2776.
33,83	-9.42.35,80 -9.42.36,61			39,8	10,18				28.4.22,30 28.4.21,49	+34,08	α Cephei R. α Cephei.
33,60	58.26.40,32 58.26.39,05 54.51.10,85				1.36,63				96.15.25,23 96.15.23,96 92.39.43,68	+20,59 +31,29	β Aquarii R. β Aquarii. Uranus.
	35.42.9,70 40.31.34,75 41.13.16,85		39,7 38,0	36,7 36,2	1.24,91 43,03 51,23	0,36			73.30.1,01 78.19.34,26 79.1.17,63	+31,29 +30,82 +30,69	Σ 51. * R. 0 ^h .38 ^m .41 ^s . Σ 63.
34,97	-52.57.55,82 -52.57.54,35 29.6.53,36 29.6.53,25 29.6.53,53	29,860 29,846	37,0 35,6	33,6 32,7	1.19,68 33,58			15.12,52	-15.12.7,22 -15.12.5,75 66.42.50,86 66.42.50,75 66.42.51,03	-12,46	β U. Min. SP. R. β Ursæ Min. SP.)).)).)).
	15.14.10,79 -65.9.23,07 -65.9.23,53	29,414	42,0	38,4	16,00 2.6,21				53.1.35,07 -27.24.21,00 -27.24.21,46	+34,14 -30,47	Σ 2882. α U. Maj. SP. R. α U. Majoris SP.
34,00	54.53.19,95 37.53.16,61 37.53.14,85	29,442	40,0	37,9	1.23,53 45,77	0,36			92.41.51,40 75.41.10,66 75.41.8,90	+31,68	Uranus. γ Pegasi R. γ Pegasi.
33,35	16.26.50,04 -3.27.50,13 -3.27.49,91	29,454	39,3	37,6	17,38 3,57				54.14.15,70 34.19.14,58 34.19.14,80	+33,96 +33,28	Σ 19. α Cassiopeiæ R. α Cassiopeiæ.
34,34	35.42.9,37 40.31.35,95				42,32 50,33				73.29.59,97 78.19.34,56	+31,50 +30,93	Σ 51. np. * R. 0 ^h .38 ^m .41 ^s .
	64.51.31,38 64.19.21,25 26.42.34,62	29,450 29,500	42,4 41,4	42,5 39,7	2.3,61 2.0,68 29,56	7,79 7,76		16.7,30	102.24.28,18 102.24.29,75 64.30.12,46		⊙. ⊙. Σ 2889.
	60.47.26,12 37.51.50,40 37.50.35,93				1.44,71 45,65 45,62				98.36.19,11 75.39.44,33 75.38.29,83	+22,94 +29,95 +29,97	ρ Aquarii. * R. 22 ^h .19 ^m .24 ^s . Σ 2905.
	54.54.39,67 16.26.50,98 26.55.58,94	29,514	40,6	40,3	1.23,39 17,33 29,82	0,36			92.43.10,98 54.14.16,59 64.43.37,04	+34,29 +33,23	Uranus. Σ 19. Σ 24. ηf.

Coincidence of Micrometer Wire with fixed Wire = 10',135, 10',137, 10',144, 10',151, 10',155 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = -0'',5. From Oct. 26 = 0'',0.

Adopted Zenith Point = 246°.49'.34'',23.

Assumed Co-latitude = 37°.47'.8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Oct. 26	(a) S.L. M.	283. 0	0. 48,9	47,7	54,1	41,6	47,0	49,1	9,434	+ 14,62	-2	+ 6,74	283. 1. 9,43	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,200	+ 19,55	-1	+ 3,37	283. 1. 10,99	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,080	+ 22,19			283. 1. 10,26	G.
	(b) Polaris SP. R. M.	106. 5	1. 33,0	31,0	35,0	25,1	30,1	32,4	7,459	+ 56,01		+ 0,42	106. 7. 27,53	G.
	(b) Polaris SP.	207. 30	1. 45,5	44,1	48,8	38,4	44,4	45,1				- 0,54	207. 31. 43,84	G.
	» Ursæ Maj. R. M.	64. 40	1. 58,9	58,9	63,4	53,5	59,2	61,0	8,277	+ 38,95			64. 42. 38,10	G.
	» Ursæ Majoris ...	248. 55	1. 27,9	27,4	32,9	22,1	29,1	29,8					248. 56. 28,20	G.
Oct. 27	(c) N.L. M.	311. 30	1. 19,7	20,6	24,0	15,8	20,5	21,0	15,849	- 1. 59,00			311. 29. 21,27	G.
	» S.L.	312. 0	1. 32,2	32,0	35,5	27,4	32,4	33,9					312. 1. 32,23	G.
	» Lyræ R. M.	53. 10	3. 16,1	17,0	19,4	10,7	16,2	19,6	3,407	+ 2. 20,53			53. 15. 37,03	G.
	» Lyræ.	260. 20	3. 29,5	28,2	33,4	22,7	29,4	30,8					260. 23. 29,00	G.
	Σ 2613. sf.	288. 40	2. 19,6	19,7	23,0	14,1	18,0	22,0					288. 42. 19,40	G.
	(d) Σ 2624. n.	263. 25	1. 40,2	38,2	44,4	32,8	38,4	42,0					263. 26. 39,33	G.
	(e) Σ 2643.	302. 25	3. 36,0	36,9	41,5	30,2	36,0	38,9					302. 28. 36,58	G.
	(f) Σ 2658. np.	246. 20	3. 33,0	31,1	37,0	25,6	30,7	35,2					246. 23. 32,10	G.
	* R. 20 ^h . 11 ^m . 48 ^s .	285. 5	2. 38,9	40,7	44,1	34,7	39,0	42,0					285. 7. 39,90	G.
	Σ 2665 M.	285. 5	2. 38,9	40,7	44,1	34,7	39,0	42,0	7,610	+ 52,86			285. 8. 32,76	G.
	(f) Σ 2708. sf.	260. 55	1. 13,6	12,2	16,8	7,0	12,8	15,0					260. 56. 12,90	G.
	4 Aquarii.	305. 10	3. 18,9	18,4	23,6	13,2	18,9	21,9					305. 13. 19,15	G.
	59 Cygni.	252. 5	2. 22,9	21,1	25,8	15,9	21,4	24,8					252. 7. 21,98	G.
	» Cephei R. M.	76. 30	2. 20,3	21,7	24,8	16,7	21,6	23,9	10,637	- 10,28			76. 32. 11,22	G.
	(g) » Cephei.	237. 5	1. 56,8	56,0	59,9	49,9	57,6	59,1					237. 6. 56,55	G.
	» S.L. M.	288. 15	1. 6,3	6,5	10,8	1,7	4,9	8,6	9,754	+ 7,95	-2	+ 7,88	288. 16. 22,30	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,580	+ 11,62	-1	+ 3,94	288. 16. 22,03	G.
	» S.L. M. ....	...	...	...	...	...	...	...	9,388	+ 15,77			288. 16. 22,24	G.
	» Ursæ Maj. R. M.	74. 20	1. 15,1	15,9	19,4	10,2	14,9	18,8	5,841	+ 1. 29,76			74. 22. 45,48	G.
	» Ursæ Majoris ...	239. 15	1. 23,3	21,1	25,6	15,9	21,0	25,4					239. 16. 22,05	G.
	Polaris SP. R. M.	106. 5	1. 27,0	23,3	28,0	19,1	23,6	26,1	7,193	+ 1. 1,55			106. 7. 26,07	G.
	Polaris SP.	207. 30	1. 45,4	44,1	48,5	38,0	45,0	45,0					207. 31. 44,32	G.
Oct. 28	(h) » S.L.	312. 20	1. 45,4	45,0	49,6	39,2	44,9	47,0					312. 21. 45,18	G.
	» N.L.	311. 45	4. 36,1	34,9	39,3	30,0	35,1	37,3					311. 49. 35,45	G.
	* R. 20 ^h . 11 ^m . 48 ^s .	285. 5	2. 39,3	41,0	44,8	34,7	40,8	42,5			+2	+ 0,15	285. 7. 40,67	G.
	Σ 2665 M.	285. 5	2. 39,3	41,0	44,8	34,7	40,8	42,5	7,628	+ 52,72	+2	+ 0,15	285. 8. 33,39	G.
	λ Ursæ Min. R. M.	103. 25	2. 24,0	24,0	26,7	17,7	23,7	26,6	12,288	- 44,72			103. 26. 39,06	G.
	λ Ursæ Minoris ...	210. 10	2. 29,3	29,9	33,3	22,9	30,3	32,4					210. 12. 29,68	G.
	Σ 2708. sf.	260. 55	1. 13,9	12,2	17,6	6,1	13,0	14,6					260. 56. 12,90	G.
	4 Aquarii.	305. 10	3. 19,7	17,8	24,7	13,3	19,9	21,0					305. 13. 19,40	G.
	(i) Σ 2757.	247. 15	0. 34,9	32,4	36,8	27,0	33,0	35,6					247. 15. 33,28	G.
	» Cephei R. M.	76. 30	1. 18,3	18,4	22,0	13,5	18,1	20,9	7,663	+ 51,75			76. 32. 10,28	G.
	» Cephei.	237. 5	1. 56,0	55,8	60,1	49,1	57,6	58,7					237. 6. 56,22	G.
	Uranus.	301. 45	0. 33,0	32,9	37,1	25,8	33,5	34,8			+2	- 0,05	301. 45. 32,80	G.
	δ U. Maj. SP. R. M.	136. 40	1. 32,9	33,0	36,9	28,2	32,5	36,5	15,018	- 1. 41,67			136. 39. 51,66	G.
	δ Ursæ Maj. SP.	176. 55	4. 13,1	13,3	20,8	8,9	17,0	18,6					176. 59. 15,28	G.
	Σ 24. nf.	273. 45	0. 32,0	31,8	36,8	25,9	32,9	34,8					273. 45. 32,37	G.
	» Cassiopeiæ R. M.	70. 15	0. 42,9	42,6	46,9	38,3	43,8	46,8	5,273	+ 1. 41,61			70. 17. 25,16	G.
	» Cassiopeiæ.	243. 20	1. 44,1	42,2	47,8	37,0	44,4	45,0					243. 21. 43,42	G.
	β Leonis R. M.	30. 0	3. 37,4	35,2	40,7	29,6	36,0	39,2	7,812	+ 48,65			30. 4. 25,00	G.
	β Leonis.	283. 30	4. 43,5	40,4	47,6	33,5	40,6	43,7					283. 34. 41,55	G.
Oct. 29	» N.L. M.	312. 10	0. 31,1	29,5	32,9	25,5	30,2	32,1	12,716	- 53,65			312. 9. 36,57	G.
	» S.L.	312. 40	1. 51,0	49,7	54,1	44,9	48,1	51,4					312. 41. 49,87	G.
	» Delphini R. M.	29. 55	2. 28,9	29,0	32,8	23,8	28,4	33,0	4,848	+ 1. 50,48			29. 59. 19,80	G.
	» Delphini.	283. 35	4. 46,0	45,2	51,9	38,8	45,5	48,9					283. 39. 46,05	G.
	» Cygni R. M.	59. 15	4. 25,3	24,1	28,8	20,0	26,0	29,9	7,209	+ 1. 1,45	+2	- 0,59	59. 20. 26,54	G.
	» Cygni.	254. 15	3. 39,0	36,0	42,2	31,8	38,4	41,4			+3	+ 1,34	254. 18. 39,47	G.
	61 ¹ Cygni R. M.	52. 30	4. 38,1	38,4	42,4	32,6	38,8	42,1	6,051	+ 1. 25,38			52. 36. 4,11	G.
	61 ¹ Cygni.	261. 0	2. 62,7	61,9	67,5	55,5	62,5	64,7					261. 3. 2,47	G.
	» Cephei R. M.	76. 30	2. 18,5	18,8	22,8	14,8	18,7	22,5	10,491	- 7,24			76. 32. 12,11	G.
	(k) » Cephei.	237. 5	1. 57,0	55,5	60,1	49,4	57,0	58,9			+2	+ 1,13	237. 6. 57,45	G.

Oct. 26, 23^h. Molyneux fast on Hardy, 46^s.7.

(a) Much clouded. (b) Times of observation by Molyneux, 13^h.7^m.26^s and 13^h.7^m.50^s. (c) Great motion.
 (d) A close double-star preceded by a small companion. (e) Cloudy. Not seen double: no star near. (f) The
 observer's note was, 'np, very small companion.' A smaller than either precedes, which probably was not seen. (g) Very
 cloudy. (h) By accident on the fixed wire, not very exactly. (i) Not seen double: alone in the field. (k) Extremely
 cloudy.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
35,68	36. 11. 35,20	29,530	41,0	39,9					73. 9. 1,68)).
	36. 11. 36,76				42,99	34. 25,61		15. 59,18	73. 9. 3,24)).
	36. 11. 36,03								73. 9. 2,51)).
	- 39. 17. 53,30	29,588	45,0	45,7	47,60				- 1. 31. 32,62	+ 29,23	Polaris SP. R.
	- 39. 17. 50,39								- 1. 31. 29,71		Polaris SP.
33,15	- 2. 6. 56,13			47,5	2,14				39. 54. 6,55	- 19,94	η Ursæ Maj. R.
	- 2. 6. 53,97								39. 54. 4,39		η Ursæ Majoris.
33,02	64. 39. 47,04	29,592	46,5	47,7	2. 1,79	7,78		16. 7,50	102. 44. 56,83		⊙.
	65. 11. 58,00				2. 4,76	7,81			102. 44. 55,73		⊙.
	13. 33. 57,20		46,0	45,2	14,06				51. 21. 19,54	+ 16,20	α Lyræ R.
	13. 33. 54,77								51. 21. 17,11		α Lyræ.
	41. 52. 45,17	29,608	45,0	44,5	52,30				79. 40. 45,75	+ 18,42	Σ 2613. sf.
33,89	16. 37. 5,10				17,42				54. 24. 30,80	+ 25,31	Σ 2624. n.
	55. 39. 2,35				1. 25,22				93. 27. 35,85	+ 14,92	Σ 2643.
	- 0. 26. 2,13				0,44				37. 21. 5,71	+ 29,14	Σ 2658. np.
	38. 18. 5,67				46,08				76. 6. 0,03	+ 21,17	* R. 20 ^h . 11 ^m . 48 ^s .
	38. 18. 58,53				46,11				76. 6. 52,92	+ 21,18	Σ 2665.
33,77	14. 6. 38,67				14,68				51. 54. 1,63	+ 28,99	Σ 2708. sf.
	58. 23. 44,92		43,8		1. 34,73				96. 12. 27,93	+ 17,24	4 Aquarii.
	5. 17. 47,75				5,42				43. 5. 1,45	+ 32,14	59 Cygni.
	- 9. 42. 36,99				10,00				28. 4. 21,29	+ 34,86	α Cephei R.
	- 9. 42. 37,68								28. 4. 20,60		α Cephei.
35,20	41. 26. 48,07	29,540	42,4	40,3	51,84	39. 0,65		16. 8,92	78. 19. 38,62)).
	41. 26. 47,80								78. 19. 38,35)).
	41. 26. 48,01								78. 19. 38,56)).
	- 7. 33. 11,25				7,79				30. 13. 49,24	- 29,30	υ Ursæ Maj. R.
	- 7. 33. 12,18								30. 13. 48,31		υ Ursæ Majoris.
34,87	- 39. 17. 51,84	29,556	44,7	46,0	47,52				- 1. 31. 31,08	+ 29,63	Polaris SP. R.
	- 39. 17. 49,90								- 1. 31. 29,14		Polaris SP.
	65. 32. 10,95	29,548	45,8	48,0	2. 6,43	7,84		16. 7,80	103. 5. 10,02		⊙.
	65. 0. 1,22				2. 3,40	7,80			103. 5. 12,90		⊙.
	38. 18. 6,44	29,560	45,4	44,1	46,05				76. 6. 0,77	+ 21,14	* R. 20 ^h . 11 ^m . 48 ^s .
33,25	38. 18. 59,16				46,07				76. 6. 53,51	+ 21,16	Σ 2665.
	- 36. 37. 4,83				43,33				1. 9. 20,12	+ 30,06	λ Ursæ Min. R.
	- 36. 37. 4,55								1. 9. 20,40		λ Ursæ Minoris.
	14. 6. 38,67				14,67				51. 54. 1,62	+ 28,97	Σ 2708. sf.
	58. 23. 45,17				1. 34,52				96. 12. 27,97	+ 17,19	4 Aquarii.
33,47	0. 25. 59,05		43,2		0,44				38. 13. 7,77	+ 33,20	Σ 2757.
	- 9. 42. 36,05				10,00				28. 4. 22,23	+ 34,99	α Cephei R.
	- 9. 42. 38,01								28. 4. 20,27		α Cephei.
	54. 55. 58,57	29,590	42,8	41,2	1. 23,50	0,36			92. 44. 29,99		Uranus.
	- 69. 50. 17,43				2. 38,65				- 32. 5. 47,80	- 28,73	δ U. Maj. SP. R.
34,29	- 69. 50. 18,95				29,84				- 32. 5. 49,32	+ 33,43	δ Ursæ Maj. SP.
	26. 55. 58,14				3,56				64. 43. 36,26	+ 34,36	Σ 24. nf.
	- 3. 27. 50,93		40,6						34. 19. 13,79		α Cassiopeiæ R.
	- 3. 27. 50,81								34. 19. 13,91		α Cassiopeiæ.
	36. 45. 9,23	29,702	40,8	40,5	44,08				74. 33. 1,59	- 19,51	β Leonis R.
32,93	36. 45. 7,32								74. 32. 59,68		β Leonis.
	65. 20. 2,34	29,766	46,0	46,6	2. 6,56	7,83		16. 8,10	103. 25. 17,45		⊙.
	65. 52. 15,64				2. 9,71	7,86			103. 25. 17,67		⊙.
	36. 50. 14,43	29,850	44,7	43,9	44,12				74. 38. 6,83	+ 23,27	α Delphini R.
	36. 50. 11,82								74. 38. 4,22		α Delphini.
33,01	7. 29. 7,69				7,75				45. 16. 23,72	+ 30,39	α Cygni R.
	7. 29. 5,24								45. 16. 21,27	+ 33,79	α Cygni.
33,29	14. 13. 30,12				14,94				52. 0. 53,34		61 ¹ Cygni R.
	14. 13. 28,24								52. 0. 51,46		61 ¹ Cygni.
34,78	- 9. 42. 37,88				10,08				28. 4. 20,32	+ 35,06	α Cephei R.
	- 9. 42. 36,78								28. 4. 21,42		α Cephei.

Coincidence of Micrometer Wire with fixed Wire = 10', 135, 10', 137, 10', 144, 10', 151, 10', 155 at the five wires.

One Micrometer Revolution = 20'', 859.

Correction for Runs = 0'', 0.

Adopted Zenith Point = 246°. 49'. 34'', 23.

Assumed Co-latitude = 37°. 47'. 8'', 28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. 0 ' "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. ' "	Interval of Obs. from Middle Wire.	Correction to Middle Wire. "	Concluded reading of Circle. 0 ' "	Observer.
			A	B	C	D	E	F						
			' "	" "	" "	" "	" "	" "						
Oct. 29	Uranus	301.45	1. 8,3	8,1	13,1	1,4	7,8	9,8			+2	-0,05	301.46. 8,03	G.
Oct. 31	♄ Piscium R. M. ...	19.20	2.27,4	26,8	31,4	21,3	28,2	31,0	4,296	+2. 1,99			19.24.29,67	G.
	♄ Piscium	294.10	4.38,7	37,0	42,3	31,0	38,5	39,1					294.14.37,77	G.
	Uranus	301.45	2.22,5	22,0	25,9	16,1	22,1	22,9			+2	-0,05	301.47.21,87	G.
	γ Pegasi R. M. ...	28.50	4.18,5	18,7	22,2	11,5	18,0	22,7	4,418	+1.59,45			28.56.18,05	G.
	γ Pegasi	284.40	2.50,0	51,2	54,1	44,3	49,7	51,1					284.42.50,07	G.
	(a) Polaris SP. R. M. ...	106. 5	1.47,6	44,8	49,4	40,8	44,3	47,5	8,277	+38,80		+0,84	106. 7.25,37	G.
	Polaris SP.	207.30	1.47,6	46,0	50,0	40,0	47,0	46,1				-0,98	207.31.45,14	G.
Nov. 1	(b) ☉ N.L.	313. 5	3.26,6	26,7	29,9	22,0	26,1	29,7					313. 8.26,83	G.
	☉ S.L.	313.40	0.36,6	37,3	40,0	32,0	37,5	38,7					313.40.37,02	G.
	♄ Ursæ Min. R. M. ...	101.10	0.39,6	35,2	40,2	32,1	37,7	40,0	6,518	+1.15,65			101.11.53,12	G.
	(c) ♄ Ursæ Minoris...	212.25	2.15,9	12,9	18,6	7,5	16,0	15,9					212.27.14,47	G.
	α Lyræ R. M.	53.10	3.28,0	27,7	28,8	23,5	27,8	32,5	4,004	+2. 8,07			53.15.36,12	G.
	α Lyræ	260.20	3.31,4	28,3	33,9	23,0	30,6	30,6					260.23.29,63	G.
	α Cephei R. M.	76.25	4.41,1	38,5	44,1	34,3	39,7	43,1	2,848	+2.32,19			76.32.12,32	G.
	α Cephei	237. 5	1.57,8	55,8	59,8	49,7	56,9	57,1					237. 6.56,18	G.
	Nov. 3	Piazzi XXIII. 100.	241.20	1.13,6	10,5	14,8	5,3	11,0	14,0			-1	+0,24	241.21.11,81	G.
Uranus		301.45	3.61,8	59,1	65,2	52,9	58,6	61,8			+2	-0,05	301.48.59,98	G.
(d) Piazzi XXIII. 276.		270.50	2.27,4	23,8	28,8	17,9	23,6	27,2					270.52.24,87	G.
α Cassiopeiæ R. M. ...		70.15	2.38,4	37,0	40,6	30,5	37,3	39,7	10,618	-10,05			70.17.27,28	G.
α Cassiopeiæ		243.20	1.45,7	42,0	48,0	35,4	40,5	43,9					243.21.42,63	G.
(e) Σ 51. <i>np.</i>		282.30	1.45,0	41,8	48,0	36,9	40,3	44,4					282.31.42,78	G.
Polaris R. M.		103. 0	2.45,9	45,0	49,0	39,3	42,4	46,1	4,922	+1.48,76			103. 4.33,46	G.
Polaris		210.30	4.39,8	38,0	42,8	30,9	36,8	41,2					210.34.38,40	G.
Nov. 4	(f) ☉ S.L. M.	314.35	2.32,1	29,4	34,4	26,1	30,5	32,8	10,770	-13,23			314.37.17,74	G.
	☉ N.L.	314. 0	4.64,0	63,0	67,6	58,4	62,1	65,1					314. 5. 3,37	G.
	(g) Σ 2651. <i>sf.</i>	283.20	0.15,9	14,9	14,9	11,0	11,8	13,4			+2	+0,17	283.20.13,82	G.
	Σ 2671. <i>sf.</i>	244. 5	2.42,9	40,0	40,9	37,1	38,8	42,0					244. 7.40,37	G.
	Σ 2720. <i>sp.</i>	282.35	3.39,9	36,8	38,9	33,7	34,8	38,4					282.38.37,20	G.
	(h) ε Pegasi R. M.	23.45	2.20,4	19,0	20,7	15,6	19,6	20,8	10,201	-1,35			23.47.18,08	G.
	ε Pegasi	289.50	1.52,2	50,0	50,5	48,8	47,3	51,4					289.51.50,10	G.
	ζ Cephei R. M. ...	72. 0	1.37,2	36,0	36,0	33,2	34,7	35,7	6,948	+1. 6,51			72. 2.42,03	G.
	ζ Cephei	241.35	1.30,0	27,1	27,5	24,8	25,6	29,7					241.36.27,50	G.
	ε Cephei R. M. ...	70.50	1.30,3	29,4	29,0	26,4	27,5	30,3	6,565	+1.14,49			70.52.43,36	G.
	ε Cephei	242.45	1.29,0	26,0	25,6	23,5	24,3	27,3					242.46.26,00	G.
	♄ Piscium R. M.	19.20	2.11,0	10,5	12,1	6,7	9,3	11,2	3,346	+2.21,63			19.24.31,83	G.
	♄ Piscium	294.10	4.37,8	34,0	37,9	33,2	33,3	37,1					294.14.35,70	G.
	Uranus	501.45	4.33,1	31,7	33,0	28,0	29,9	33,0			+2	-0,03	301.49.31,57	G.
	Piazzi XXIII. 276.	270.50	2.27,0	23,7	25,5	21,0	20,8	25,9					270.52.24,07	G.
Nov. 5	(i) ☉ N.L.	314.20	3.31,1	30,2	31,2	28,6	30,1	31,4					314.23.30,55	G.
	☉ S.L.	314.55	0.45,7	44,8	44,7	43,2	44,9	44,8					314.55.44,70	G.
Nov. 8	(k) ☉ S.L. M.	315.50	0.13,0	13,3	12,9	12,4	14,0	12,8	12,620	-51,81			315.49.21,26	G.
	☉ N.L.	315.15	2. 8,3	8,2	8,0	6,3	6,6	7,5					315.17. 7,55	G.
Nov. 12	(l) ☉ S.L. M.	316.55	1.19,1	19,0	17,7	18,3	20,2	20,8	8,105	+42,37			316.57. 1,60	G.
	☉ N.L.	316.20	4.43,2	44,0	43,5	42,0	45,0	44,2					316.24.43,80	G.
	λ Aquarii	307.25	0.26,3	26,0	24,4	23,3	24,8	25,9					307.25.25,13	G.
	α U. Maj. SP. R. M. ...	132. 0	0.23,9	22,0	22,0	21,8	22,5	25,6	13,910	-1.18,72			131.59. 4,26	G.
	α Ursæ Maj. SP. ...	181.35	4.63,0	59,4	60,7	59,4	59,4	62,1					181.40. 0,67	G.
	β Piscium	296. 0	2.37,0	35,8	33,3	31,7	33,7	35,9					296. 2.34,65	G.
	) S.L. M.	299.30	2. 8,1	6,1	5,9	3,7	5,1	6,6	10,359	-4,84	-2	-7,10	299.31.54,04	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,510	-7,95	-1	-3,55	299.31.54,48	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,677	-11,28			299.31.54,70	G.
	) S.L. M. ....	...	...	...	...	...	...	...	10,870	-15,17	+1	+3,55	299.31.54,36	G.
) S.L. M. ....	...	...	...	...	...	...	...	11,020	-18,21	+2	+7,10	299.31.54,87	G.	

Nov. 1, 22^h. Molyneux fast on Hardy 53^h.0.Runs and Coincidences at the five wires taken Nov. 8, 3^h.

(a) Much unsteadiness in the reflexion observation, owing to the wind. Times of observation by Molyneux, 13^h. 8^m. 40^s and 13^h. 9^m. 0^s.
 (b) Great waving. N.L. came on the fixed wire, not very exactly. (c) Faint. (d) Not seen double. (e) The companion is a faint star.
 (f) Both limbs without the dark glass; no satisfactory. No correction for Runs in the observation of N.L. (g) Before this observation the Microscopes were adjusted. (h) Too near the fixed wire. (i) Accidentally on the fixed wire: not quite exactly. (k) Much waving.
 (l) Moisture on the Circle and Microscopes, arising from change of Temperature, made the divisions indistinct.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
33,72	54.56.33,80	29,900	42,6	41,0	1.24,44	0,36			92.45.6,16		Uranus.
	47.25.4,56	30,170	46,6	46,0	1.4,45				85.13.17,29	+29,35	♄ Piscium R.
	47.25.3,54								85.13.16,27		♄ Piscium.
34,06	54.57.47,64				1.24,39	0,36			92.46.19,95		Uranus.
	37.53.16,18			44,8					75.41.10,69	+32,00	γ Pegasi R.
	37.53.15,84				46,23				75.41.10,35		γ Pegasi.
35,26	-39.17.51,14	30,136	48,3	50,3					-1.31.30,88	+31,13	Polaris SP. R.
	-39.17.49,09				48,02				-1.31.28,83		Polaris SP.
33,80	66.18.52,60	30,134	50,4	50,9	2.12,87	7,90		16.8,80	104.24.14,65		☉.
	66.51.2,79				2.16,28	7,93			104.24.10,62		☉.
	-34.22.18,89	30,112	50,5	52,1					3.24.9,43	+15,77	♄ Ursæ Min. R.
32,88	-34.22.19,76				39,96				3.24.8,56		♄ Ursæ Minoris.
	13.33.58,11								51.21.20,50	+15,54	α Lyrae R.
	13.33.55,40				14,11				51.21.17,79		α Lyrae.
34,25	-9.42.38,09		49,0	49,1					28.4.20,13	+35,27	α Cephei R.
	-9.42.38,05				10,06				28.4.20,17		α Cephei.
34,96	-5.28.22,42	29,938	42,0	39,0	5,72				32.18.40,14	+38,60	Piazzi xxiii. 100.
	54.59.25,75			38,4	1.25,16	0,36			92.47.58,83		Uranus.
	24.2.50,64				26,67				61.50.25,59	+34,69	Piazzi xxiii. 276.
35,93	-3.27.53,05		40,8	38,0					34.19.11,61	+35,80	α Cassiopeiæ R.
	-3.27.51,60				3,62				34.19.13,06	+32,06	α Cassiopeiæ.
	35.42.8,55				42,98				73.29.59,81	+32,03	Σ 51. np.
34,09	-36.14.59,23			37,8	43,87				1.31.25,18		Polaris R.
	-36.14.55,83								1.31.28,58		Polaris.
34,77	67.47.43,51	30,050	43,6	43,0	2.24,61	7,99		16.9,60	105.20.58,81		☉.
	67.15.29,14				2.20,87	7,96			105.20.59,93		☉.
	36.30.40,78	30,134	43,3	39,6	44,41				74.18.33,47	+20,87	Σ 2651. sf.
34,68	-2.41.52,67				2,83				55.5.12,78	+29,79	Σ 2671. sf.
	35.49.4,16				43,30				73.36.55,74	+23,79	Σ 2720. sp.
	43.2.14,96		40,0	37,3	56,26				80.50.19,50	+26,14	ε Pegasi R.
33,77	43.2.17,06								80.50.21,60		ε Pegasi.
	-5.13.8,99	30,140	39,1	36,7	5,52				32.33.53,77	+37,91	ζ Cephei R.
	-5.13.5,54								32.33.57,22	+27,95	ζ Cephei.
32,47	-4.3.10,32				4,28				33.43.53,68		ε Cephei R.
	-4.3.7,04								33.43.56,96	+29,31	ε Cephei.
	47.25.1,21		38,2	35,0	1.5,88				85.13.15,37		♄ Piscium R.
32,47	47.25.2,66				1.26,37	0,36			85.13.16,82		♄ Piscium.
	54.59.58,53				27,04				92.48.32,82	+34,79	Uranus.
	24.2.51,03								61.50.26,35		Piazzi xxiii. 276.
32,47	67.33.57,51	30,126	43,5	43,6	2.23,18	7,98		16.9,80	105.39.30,79		☉.
	68.6.11,66				2.27,02	8,01			105.39.29,15		☉.
32,47	68.59.48,22	30,048	43,6	44,0	2.33,28	8,06		16.10,60	106.33.11,12		☉.
	68.27.34,51				2.29,16	8,03			106.33.14,52		☉.
32,47	70.7.28,56	29,104	51,3	53,5	2.34,47	8,13		16.11,50	107.40.51,68		☉.
	69.35.10,76				2.30,11	8,10			107.40.52,55		☉.
	60.35.52,09	29,384	48,2	46,5	1.42,03				98.24.42,40	+23,82	λ Aquarii.
32,47	-65.9.31,22				2.3,97				-27.24.26,91	-35,69	α U. Maj. SP. R.
	-65.9.32,37				1.6,79				-27.24.28,06		α Ursæ Maj. SP.
	49.13.1,61	29,388	47,4	46,7					87.1.16,68	+28,00	β Piscium.
32,47	52.42.21,00								89.33.4,14		δ.
	52.42.21,44								89.33.4,58		δ.
	52.42.21,66				1.15,60	42.54,94		14.45,80	89.33.4,80		δ.
32,47	52.42.21,32								89.33.4,46		δ.
	52.42.21,83								89.33.4,97		δ.

Coincidence of Micrometer Wire with fixed Wire = 10',135, 10',137, 10',144, 10',151, 10',155 at the five wires. From Nov. 3 = 10',127, 10',129, 10',136, 10',143, 10',147.

One Micrometer Revolution = 20'',859.

Correction for Runs = 0'',0. From Nov. 3 = +1'',0.

Adopted Zenith Point = 246°.49'.34'',23. After the Sun Nov. 4 = 246°.49'.33'',04.

Assumed Co-latitude = 37°.47'.8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer. " "	Microscopes.						Microm. Reading. r.	Correction to Fixed Wire. " "	Interval of Obs. from Middle Wire. " "	Correction to Middle Wire. " "	Concluded reading of Circle. " "	Observer.
			A	B	C	D	E	F						
			" "	" "	" "	" "	" "	" "						
Nov. 12	ϵ Piscium	294.10	4.40,8	38,9	39,3	36,3	38,3	40,2					294.14.39,12	G.
	Uranus M.....	301.50	3.27,4	24,5	25,7	22,7	25,1	27,3	10,866	-15,23			301.53.10,34	G.
	γ U. Maj. SP. R. M.	139.55	4.25,0	23,0	23,9	21,5	23,8	26,4	9,300	+17,45			139.59.41,53	G.
	γ Ursæ Maj. SP...	173.35	4.25,5	21,9	23,4	20,2	22,7	25,9					173.39.23,42	G.
	ω Piscium	293.0	1.37,2	36,0	35,1	32,8	34,1	37,0					293.1.35,42	G.
	α Cassiopeiæ R. M.	70.15	1.46,0	43,5	44,1	42,6	44,2	46,6	8,048	+43,56			70.17.28,11	G.
	α Cassiopeiæ	243.20	1.41,2	38,0	37,8	36,0	38,6	40,0					243.21.38,65	G.
	Polaris R. M.	103.0	2.20,7	19,9	18,8	17,4	18,0	21,0	3,578	+2.16,79			103.4.36,17	G.
	Polaris	210.30	4.32,5	31,0	30,2	27,3	30,5	33,0					210.34.30,90	G.
Nov. 14	\odot S.L. M.....	317.25	4.33,1	29,4	31,8	29,0	30,9	33,0	11,930	-37,42			317.28.53,93	G.
	\odot N. L.	316.55	1.38,0	35,5	35,8	34,6	36,3	37,7					316.56.36,37	G.
	η Draconis R. M. .	76.25	1.42,1	38,0	38,8	37,9	38,3	40,8	3,877	+2.10,55			76.28.49,92	G.
	η Draconis	237.10	0.20,3	18,0	17,1	15,7	18,6	18,9					237.10.18,12	G.
Nov. 17	Uranus	301.50	4.49,3	45,9	49,0	42,7	44,9	48,0			+2	-0,03	301.54.46,45	G.
	α Persei R. M.	63.50	4.47,3	45,9	48,1	42,8	45,1	48,2	10,314	-3,59			63.54.42,49	G.
	α Persei	249.40	4.28,5	23,0	25,8	19,9	23,8	25,9					249.44.24,35	G.
	) N.L. M.....	276.50	2.6,6	2,0	6,4	0,2	3,8	4,5	9,666	+9,93			276.52.13,78	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,739	+8,55	+1	+1,94	276.52.14,34	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,847	+6,39	+2	+3,88	276.52.14,12	G.
Nov. 18	γ Androm. R. M. ...	56.10	1.41,7	39,7	39,4	36,8	39,4	42,3	10,613	-9,82			56.11.30,01	G.
	γ Andromedæ	257.25	2.38,4	34,2	37,2	33,2	33,7	37,1					257.27.35,55	G.
	ϵ Trianguli, <i>sp.</i> ...	269.25	2.57,5	53,9	56,7	51,4	52,3	55,0					269.27.54,38	G.
	θ^1 Arietis	279.50	1.14,8	13,7	15,0	10,7	12,4	13,1					279.51.13,25	G.
	(a)) N.L. M.....	274.45	4.9,1	6,7	10,0	2,8	4,8	7,1	9,593	+11,26	-2	-2,00	274.49.15,89	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,626	+10,62	-1	-1,00	274.49.16,25	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,680	+9,63			274.49.16,26	G.
	) N.L. M.....	...	...	...	...	...	...	...	9,730	+8,74	+1	+1,00	274.49.16,37	G.
Nov. 20	η Ursæ Maj. R. M.	64.40	1.38,0	36,9	37,0	35,8	38,2	39,0	7,680	+51,35			64.42.28,78	G.
	η Ursæ Majoris ...	248.55	1.39,0	36,1	37,0	34,2	36,5	38,2					248.56.36,78	G.
Nov. 21	\odot N.L. M.....	318.35	3.32,0	29,4	30,5	28,8	29,8	32,8	11,690	-32,29			318.37.58,16	G.
	\odot S.L.	319.10	0.20,0	16,3	18,7	18,0	19,3	19,6					319.10.18,63	G.
Nov. 24	\odot S.L. M.....	319.50	0.34,2	34,0	32,8	32,7	33,0	34,1	15,890	-1.59,90			319.48.33,55	G.
	\odot N.L.	319.15	1.13,9	14,3	12,9	11,8	12,3	13,7					319.16.13,12	G.
	(b) α Cygni R. M. ...	59.20	0.24,7	23,4	22,4	21,5	23,9	24,4	10,100	+0,87			59.20.24,24	G.
	α Cygni	254.15	3.42,0	40,0	40,8	36,0	40,1	41,6					254.18.39,97	G.
	η Cephei R. M.	75.45	4.26,8	26,1	25,4	23,8	24,9	28,7	6,524	+1.15,48			75.50.41,30	G.
	η Cephei	237.45	3.26,0	24,0	23,4	20,9	23,2	26,1					237.48.23,83	G.
	(c) Σ 2750.	286.55	0.24,7	24,1	22,6	22,0	23,6	25,1					286.55.23,67	G.
	α Cephei R. M.	76.30	1.24,2	23,8	22,1	22,0	22,3	24,0	7,850	+47,81			76.32.10,83	G.
	α Cephei	237.5	1.56,9	54,2	53,9	51,3	55,0	56,0					237.6.54,50	G.
	α U. Maj. SP. R. M.	132.0	0.35,2	34,6	33,3	33,0	33,8	36,1	14,238	-1.25,45			131.59.8,87	G.
	(d) α Ursæ Maj. SP...	181.35	4.57,0	54,6	55,9	55,3	55,2	57,4					181.39.55,90	G.
	Uranus	301.55	1.26,5	24,9	25,0	22,9	24,5	25,4			+2	-0,03	301.56.24,79	G.
	(e) Piazzi XXIII. 276.	270.50	2.25,9	22,3	23,5	21,0	22,7	24,9					270.52.23,32	G.
	(f) \odot N.L. M.....	319.25	4.22,6	20,0	21,3	19,4	21,2	22,2	13,523	-1.10,53			319.28.10,45	G.
	\odot S.L.	320.0	0.34,0	32,9	33,0	32,1	33,9	34,7					320.0.33,42	G.
Nov. 25	α U. Maj. SP. R. M.	131.55	4.28,3	27,0	26,2	24,9	25,9	28,5	11,019	-18,30			131.59.8,37	G.
	α Ursæ Maj. S.P..	181.35	4.58,8	56,5	58,1	54,9	56,8	58,3					181.39.57,08	G.
	α Ursæ Maj. R. M.	77.10	1.37,1	34,9	35,1	35,0	34,8	37,5	8,918	+25,53			77.12.1,21	G.
	α Ursæ Majoris...	236.25	2.7,9	3,0	5,2	2,8	3,8	6,3					236.27.4,77	G.
	(g)) S.L. M.....	298.35	1.56,4	52,0	53,8	51,8	50,7	54,2	9,340	+16,54	-2	+8,52	298.37.18,16	G.
	) S.L. M.....	...	...	...	...	...	...	...	9,141	+20,73	-1	+4,26	298.37.18,09	G.
	) S.L. M.....	...	...	...	...	...	...	...	8,926	+25,37			298.37.18,47	G.
	) S.L. M.....	...	...	...	...	...	...	...	8,740	+29,39	+1	-4,26	298.37.18,23	G.
	) S.L. M.....	...	...	...	...	...	...	...	8,533	+33,80	+2	-8,52	298.37.18,38	G.

Runs and Coincidence at the middle wire taken Nov. 25, 22^h.

(a) Good.

(b) Too near the fixed wire.

(e) Much clouded.

(c) Not seen double.

(f) Without the dark glass: unsatisfactory.

(d) No correction for Runs.

(g) Misty.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N.P.D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	" " "	Inch.	"	"	" "	" "	"	" "	" " "	"	"
32,48	47.25. 6,08	29,388	47,4	46,7	1. 2,69	0,36			85.13.17,05	+29,13	♄ Piscium. Uranus. γ U. Maj. SP. R. γ Ursæ Maj. SP. ♄ Piscium. α Cassiopeiæ R. α Cassiopeiæ. Polaris R. Polaris.
	55. 3.37,30				1.22,38				92.52. 7,60		
	-73.10. 8,49				3. 8,32				-35.26. 8,53	-33,50	
33,38	-73.10. 9,62								-35.26. 9,66		α Cassiopeiæ R. α Cassiopeiæ. Polaris R. Polaris.
	46.12. 2,38	29,414	47,4	46,8	1. 0,08				84. 0.10,74	+30,17	
	-3.27.55,07				3,50				34.19. 9,71	+37,81	
33,54	-3.27.54,39	29,428	47,4						34.19.10,39		Polaris R. Polaris.
	-36.15. 3,13				42,33				1.31.22,82	+35,13	
	-36.15. 2,14								1.31.23,81		
34,02	70.39.20,89	29,698	46,4	46,7	2.44,50	8,16	16.11,90		108.12.55,61		♄. ♄. η Draconis R. η Draconis.
	70. 7. 3,33				2.39,77	8,13			108.12.55,15		
	-9.39.16,88	29,712	47,1	47,5	9,90				28. 7.41,50	-6,00	
33,42	-9.39.14,92								28. 7.43,46		Uranus. α Persei R. α Persei. ♄. ♄. ♄.
	55. 5.13,41	30,400	39,7	38,1	1.26,83	0,36			92.53.48,16		
	2.54.50,55	30,440	40,3	38,9	3,09				40.42. 1,92	+22,89	
32,78	2.54.51,31								40.42. 2,68		γ Andromedæ R. γ Andromedæ. ♄ Trianguli. sp. ♄ Arietis.
	30. 2.40,74				35,11	27.48,78		15.15,04	67.37.50,39		
	30. 2.41,30								67.37.50,95		
32,78	30. 2.41,08								67.37.50,73		♄. ♄. ♄.
	10.38. 3,03	30,376	40,0	37,0	11,42				48.25.22,73	+31,93	
	10.38. 2,51				25,37				48.25.22,21	+30,06	
32,78	22.38.21,34				39,53				60.25.54,99	+28,42	α Cygni R. α Cygni. η Cephei R. η Cephei. Σ 2750. α Cephei R. α Cephei. α U. Maj. SP. R. α Ursæ Maj. SP. Uranus. Piazzi xxxiii.276.
	33. 1.40,21	30,322	37,7	35,7	32,36	26.18,63		15.23,75	70.49.28,02		
	27.59.42,85								65.36.28,61		
32,78	27.59.43,21								65.36.28,97		♄. ♄. ♄.
	27.59.43,22								65.36.28,98		
	27.59.43,33								65.36.29,09		
32,78	-2. 7. 4,26	29,750	41,8	39,4	2,19				39.54.14,73	-28,74	η Ursæ Maj. R. η Ursæ Majoris.
	-2. 7. 3,74								39.54.14,21		
	71.48.25,12	29,774	42,9	43,3	2.57,19	8,23		16.13,30	109.54.35,66		♄. ♄. ♄.
32,11	72.20.45,59				3. 2,85	8,26			109.54.35,16		
	72.59. 0,51	28,810	45,0	47,0	3. 2,44	8,29		16.13,90	110.32.49,04		
32,57	72.26.40,08				2.56,62	8,27			110.32.50,61		α Cygni R. α Cygni. η Cephei R. η Cephei. Σ 2750. α Cephei R. α Cephei. α U. Maj. SP. R. α Ursæ Maj. SP. Uranus. Piazzi xxxiii.276.
	7.29. 8,80	28,826	45,2	44,6	7,47				45.16.24,55	+29,12	
	7.29. 6,93								45.16.22,68	+33,05	
32,67	-9. 1. 8,26				9,02				28.45.51,00	+23,16	α U. Maj. SP. R. α Ursæ Maj. SP. Uranus. Piazzi xxxiii.276.
	-9. 1. 9,21				47,84				28.45.50,05	+35,61	
	40. 5.50,63		44,4		9,73				77.53.46,75	-38,37	
32,39	-9.42.37,79								28. 4.20,76		♄. ♄. ♄.
	-9.42.38,54								28. 4.20,01		
	-65. 9.35,83		44,3	43,5	2. 2,40	0,36			-27.24.29,95		
32,73	-65. 9.37,14	28,820	44,0	43,3	1.21,53	8,28		16.14,00	-27.24.31,26	-38,57	α U. Maj. SP. R. α Ursæ Maj. SP. α Ursæ Maj. R. α Ursæ Majoris.
	55. 6.51,75				25,42	8,30			92.55.21,20		
	24. 2.50,28								61.50.23,98	36,07	
32,99	72.38.37,41	28,800	46,4	47,0	2.58,66				110.44.50,07		♄. ♄. ♄.
	73.11. 0,38				3. 4,61				110.44.50,97		
	-65. 9.35,33	28,834	43,5	41,8	2. 2,86				-27.24.29,91	-38,57	
32,99	-65. 9.35,96								-27.24.30,54		♄. ♄. ♄.
	-10.22.28,17	28,936	42,3	40,2	10,54				27.24.29,57	-38,67	
	-10.22.28,27								27.24.29,47		
32,99	51.47.45,12								88.33.35,47		♄. ♄. ♄.
	51.47.45,05								88.33.35,40		
	51.47.45,43				1.13,02	46.22,02		16. 8,93	88.33.35,78		
32,99	51.47.45,19								88.33.35,54		♄. ♄.
	51.47.45,34								88.33.35,69		

Coincidence of Micrometer Wire with fixed Wire = 10',127, 10',129, 10',136, 10',143, 10',147 at the five wires. From

Nov. 17 = 10',133, 10',135, 10',142, 10',149, 10',153.

One Micrometer Revolution = 20'',859.

Correction for Runs = + 1'',0. From Nov. 17 = - 0'',9.

Adopted Zenith Point = 246°. 49'. 33'',04.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
			"	"	"	"	"	"						
Nov. 25	(a) δ Leonis R. M. ...	35.55	3.23,2	20,2	20,5	19,1	19,9	24,3	5,026	+1.46,87	+1	-0,06	36.0.7,91	G.
	δ Leonis	277.35	3.58,9	54,0	58,3	53,7	55,5	56,7			+2	+0,23	277.38.56,30	G.
	ϵ Leonis	287.35	3.4,5	0,8	2,5	1,0	1,1	3,9					287.38.2,22	G.
	τ Leonis	295.15	3.11,0	7,2	10,0	6,7	7,3	9,3					295.18.8,48	G.
	ν Leonis	298.55	3.41,5	37,4	39,0	36,4	37,4	40,1					298.58.38,52	G.
Nov. 26	α U. Maj. SP. R. M. ...	131.55	4.43,9	41,2	42,4	40,4	42,1	44,4	11,827	-35,15			131.59.7,12	G.
	α Ursæ Maj. SP. ...	181.35	4.59,7	57,0	59,0	55,4	58,3	58,9					181.39.57,90	G.
	Uranus	301.55	1.41,0	39,1	40,1	37,3	38,6	40,1			+2	-0,03	301.56.39,29	G.
	(b) γ U. Maj. SP. R. M. ...	140.0	2.19,3	17,0	17,5	15,9	17,4	19,1	17,377	-2.30,77	+1	+0,21	139.59.47,07	G.
	γ Ursæ Maj. SP. ...	173.35	4.25,1	20,1	23,0	19,9	21,6	24,9			+2	-0,85	173.39.21,45	G.
Nov. 29	(c) Σ 4. p.	291.25	1.31,8	30,1	30,0	27,7	29,3	31,0					291.26.29,93	G.
	\odot S.L. M.	320.40	4.32,6	32,2	31,2	29,0	31,2	32,4	10,552	-8,57			320.44.23,10	G.
Nov. 30	\odot N.L.	320.10	2.3,3	1,4	2,8	1,7	3,0	2,9					320.12.2,62	G.
	α Cephei R. M. ...	76.30	1.18,8	14,4	16,8	15,3	17,3	17,8	7,521	+54,66			76.32.11,46	G.
	α Cephei	237.5	1.58,4	53,8	55,4	52,2	55,8	56,7					237.6.55,48	G.
	Uranus	301.55	1.54,1	50,1	53,4	48,4	52,3	52,7					301.56.51,93	G.
	α Cassiopeiæ R. M. ...	70.15	1.28,8	24,8	25,8	24,9	25,2	28,9	7,041	+1.4,67			70.17.31,15	G.
Dec. 3	α Cassiopeiæ	243.20	1.39,0	33,7	36,2	32,0	34,9	37,0					243.21.35,55	G.
	(d) Polaris R. M.	103.0	2.34,6	31,0	32,8	30,9	32,3	33,7	3,893	+2.10,32		-2,23	103.4.40,77	G.
	(d) Polaris	210.30	4.28,1	22,0	25,8	21,5	25,0	27,8				+2,54	210.34.27,81	G.
	Uranus	301.55	1.55,1	50,9	53,1	48,8	52,0	52,8					301.56.52,22	G.
	α Persei R. M. ...	63.50	3.25,0	21,8	22,8	20,0	21,2	26,1	6,222	+1.21,75			63.54.44,75	G.
Dec. 5	α Persei	249.40	4.24,0	16,5	21,5	15,4	18,1	22,2					249.44.19,85	G.
	η Tauri R. M.	38.10	4.9,9	6,0	8,0	5,7	7,3	10,9	9,847	+6,13			38.14.14,31	G.
	η Tauri	275.20	4.50,1	44,8	50,4	43,6	46,3	50,4					275.24.47,85	G.
	ζ U. Min. SP. R. M. ...	116.15	4.24,0	20,9	22,1	20,2	19,0	25,6	10,685	-11,34			116.19.10,86	G.
	ζ Ursæ Min. SP. ...	197.15	4.57,1	52,0	55,0	50,8	51,2	56,1					197.19.53,97	G.
Dec. 8	(e) \odot N.L. M.	321.5	1.20,8	17,9	17,8	17,4	16,9	20,2	12,559	-50,44			321.5.28,13	G.
	\odot S.L.	321.35	2.52,8	51,4	51,8	50,4	51,3	53,2					321.37.51,97	G.
Dec. 13	\odot S.L. M.	306.35	3.32,9	29,0	32,1	27,9	30,9	32,1	10,534	-8,20			306.38.22,80	G.
	\odot S.L. M. ....	...	...	...	...	...	...	...	10,741	-12,37	+1	+3,49	306.38.22,12	G.
	\odot S.L. M. ....	...	...	...	...	...	...	...	10,908	-15,77	+2	+6,98	306.38.22,21	G.
	ζ Pegasi R. M. ...	24.35	2.25,9	24,0	24,8	20,6	24,4	26,2	6,805	+1.9,60			24.38.34,05	G.
	ζ Pegasi	289.0	0.32,1	28,0	30,1	27,7	28,4	31,7					289.0.29,70	G.
	α U. Maj. SP. R. M. ...	132.0	0.26,9	23,8	25,2	23,3	23,9	28,5	14,112	-1.22,83			131.59.2,45	G.
	α Ursæ Maj. SP. ...	181.40	0.4,0	0,9	3,2	0,8	0,4	3,9					181.40.2,20	G.
	Uranus	301.55	1.27,1	22,9	27,0	23,0	23,0	26,9			+2	-0,03	301.56.25,02	G.
	γ U. Maj. SP. R. M. ...	140.0	2.32,2	29,8	30,8	29,7	30,3	33,3	18,391	-2.52,08			139.59.39,07	G.
	γ Ursæ Maj. SP. ...	173.35	4.29,9	23,6	29,2	24,4	26,0	30,3					173.39.27,47	G.
	(f) γ Pegasi R. M. ...	28.50	4.24,6	23,1	23,8	23,1	20,5	27,2	4,698	+1.53,53			28.56.17,48	G.
	γ Pegasi	284.40	2.47,3	42,1	45,7	42,0	42,0	47,0					284.42.44,50	G.
	α Cassiopeiæ R. M. ...	70.15	1.37,1	34,5	36,0	34,2	33,7	39,2	7,458	+55,97			70.17.31,84	G.
	α Cassiopeiæ	243.20	1.37,3	30,6	34,8	33,2	31,3	36,1					243.21.33,97	G.
	(g) \star R. 0 ⁿ . 38 ^m . 41 ^s	287.20	1.6,4	2,1	4,9	3,6	2,1	6,5					287.21.4,32	G.
Dec. 13	(h) Σ 63.	288.0	2.49,6	44,8	47,7	45,9	45,1	49,6					288.2.47,27	G.
	(i) \odot N.L. M.	321.50	4.21,8	20,2	20,0	20,8	23,0	24,7	15,569	-1.53,40			321.52.28,25	G.
	\odot S.L.	322.20	4.53,1	54,0	52,9	53,0	54,0	55,5					322.24.53,63	G.
	α Cygni R. M.	59.15	4.17,9	16,1	16,0	14,9	17,9	19,8	7,139	+1.2,45			59.20.19,45	G.
	α Cygni	254.15	3.42,6	39,3	40,3	39,1	40,9	43,0					254.18.40,78	G.
	η Cephei R. M. ...	75.45	3.45,3	44,0	43,1	41,7	43,8	47,0	4,773	+1.51,81			75.50.35,88	G.
	η Cephei	237.45	3.28,3	25,1	23,9	24,4	25,5	28,2					237.48.25,82	G.
	α Cephei R. M. ...	76.30	2.18,8	16,4	15,2	16,0	16,9	17,9	10,552	-8,74			76.32.8,08	G.
	α Cephei	237.5	1.57,2	56,1	53,1	53,4	57,8	57,9					237.6.55,87	G.
	Uranus	301.55	0.35,2	33,0	32,4	30,8	33,3	35,4			+2	-0,03	301.55.33,30	G.

Nov. 30, 3^h. Molyneux fast on Hardy, 21^h 0.Runs and Coincidence at the middle wire taken Dec. 4, 23^h.Runs taken Dec. 14, 9^h 1^h. Coincidence at the middle wire taken Dec. 17, 2^h.

- (a) Faint blur, from wind and cloud. (b) Not good. (c) The stars are nearly on the same parallel.
 (d) Times of observation by Molyneux, 1^h. 10^m. 20^s and 1^h. 10^m. 46^s. (e) Both limbs without the dark glass. Much
 clouded and waving exceedingly. (f) Before this observation the Telescope was struck with some violence.
 (g) Faint. No other star near. (h) The only star visible: not seen double. (i) Misty.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
32,11	30.49.25,13 30.49.23,26 40.48.29,18 48.28.35,44 52.9.5,48	28,936	42,3	40,2	34,34 49,67 1.4,93 1.13,96				68.37.7,75 68.37.5,88 78.36.27,13 86.16.48,65 89.57.27,72	-26,99 -23,77 -21,22 -20,20	δ Leonis R. δ Leonis. ι Leonis. τ Leonis. ν Leonis.
32,51	-65.9.34,08 -65.9.35,14 55.7.6,25	29,142 29,150	42,3	42,0	2.4,12 1.22,90	0,36			-27.24.29,92 -27.24.30,98 92.55.37,07	-38,77	α U. Maj. SP. R. α Ursæ Maj. SP. Uranus.
34,26	-73.10.14,03 -73.10.11,59 44.36.56,89				3.9,15 57,10				-35.26.14,90 -35.26.12,46 82.25.2,27	-37,44 +30,25	γ U. Maj. SP. R. γ Ursæ Maj. SP. Σ 4. p.
	73.54.50,06 73.22.29,58	29,472	46,6	47,8	3.17,40 3.10,83	8,34 8,31		16.14,60	111.28.52,80 111.28.54,98		⊙. ⊙.
33,47	-9.42.38,42 -9.42.37,56 55.7.18,89	29,788 29,874	44,4	42,8	10,09 1.25,05	0,35			28.4.19,77 28.4.20,63 92.55.51,87	+35,22	α Cephei R. α Cephei. Uranus.
33,35	-3.27.58,11 -3.27.57,49	29,886	41,4	39,7	3,61				34.19.6,56 34.19.7,18 1.31.16,90	+40,95 +40,63	α Cassiopeiae R. α Cassiopeiae. Polaris R. Polaris.
34,29	-36.15.7,73 -36.15.5,23			39,4	43,65				1.31.16,90 1.31.19,40		
	55.7.19,18 2.54.48,29 2.54.46,81	30,322 30,340	48,1 42,5	46,4 38,3	1.25,24 3,08	0,35			92.55.52,35 40.41.59,65 40.41.58,17	+25,87	Uranus. α Persei R. α Persei.
32,30	28.35.18,73 28.35.14,81				33,01				66.23.0,02 66.22.56,10	+20,70	η Tauri R. η Tauri.
31,08	-49.29.37,82 -49.29.39,07				1.10,83				-11.43.40,37 -11.43.41,62	-19,53	ζ U. Min. SP. R. ζ Ursæ Min. SP.
	74.15.55,09 74.48.18,93	30,228	45,1	44,8	3.28,40 3.35,94	8,36 8,38		16.15,50	112.22.38,91 112.22.39,27		⊙. ⊙.
	59.48.49,76 59.48.49,08 59.48.49,17 42.10.58,99 42.10.56,66	30,334	40,3	38,0	1.43,88 54,95	46.52,32		14.49,82	96.35.59,78 96.35.59,10 96.35.59,19 79.59.2,22 79.58.59,89	+28,17	⊙. ⊙. ⊙. ζ Pegasi R. ζ Pegasi.
31,88	-65.9.29,41 -65.9.30,84 55.6.51,98				2.10,40 1.27,21	0,35			-27.24.31,53 -27.24.32,96 92.55.27,12	-40,72	α U. Maj. SP. R. α Ursæ Maj. SP. Uranus.
32,33	-73.10.6,03 -73.10.5,57				3.19,01				-35.26.16,76 -35.26.16,30	-40,24	γ U. Maj. SP. R. γ Ursæ Maj. SP.
33,27	37.53.14,27 37.53.12,75			35,3	47,41				75.41.9,96 75.41.8,44	+31,93	γ Pegasi R. γ Pegasi.
30,99	-3.28.0,09 -3.27.57,78	30,390	37,0	34,3	3,71				34.19.4,48 34.19.6,79	+41,93	α Cassiopeiae R. α Cassiopeiae.
32,90	40.31.32,57 41.13.15,52				52,28 53,58				78.19.33,13 79.1.17,38	+30,77 +30,48	* Lt. 0 ^h . 38 ^m . 41 ^s . Σ 63.
	75.2.56,50 75.35.21,88	29,984	53,6	54,7	3.33,32 3.41,41	8,40 8,42		16.16,40	113.9.46,10 113.9.46,75		⊙. ⊙.
30,12	7.29.12,30 7.29.9,03	29,974	55,3	55,4	7,60				45.16.28,18 45.16.24,91	+26,15	α Cygni R. α Cygni.
30,85	-9.1.4,13 -9.1.5,93				9,18				28.45.54,97 28.45.53,17	+30,26	η Cephei R. η Cephei.
31,97	-9.42.36,33 -9.42.35,88 55.6.1,55			54,5	9,91				28.4.22,04 28.4.22,49 92.54.32,81	+33,69	α Cephei R. α Cephei. Uranus.

Coincidence of Micrometer Wire with fixed Wire = 10',133, 10',135, 10',142, 10',149, 10',153 at the five wires. From

Nov. 29 = 10',132, 10',134, 10',141, 10',148, 10',152. From Dec. 13 = 10',122, 10',126, 10',133, 10',143, 10',147.

One Micrometer Revolution = 20",859.

Correction for Runs = -0",9. From Nov. 29 = +1",6. From Dec. 13 = -0",7.

Adopted Zenith Point = 246°. 49'. 33",04. From γ Pegasi Dec. 8 = 246°. 49'. 31",75.

Assumed Co-latitude = 37°. 47'. 8",28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Dec. 13	Σ 1. <i>sf.</i>	262.40	1.17,0	14,0	14,4	11,7	13,7	17,4					262.41.15,11	G.
	(a) κ Draconis SP. R. . .	123.55	1.20,6	18,8	17,8	17,6	19,0	20,1					123.56.18,95	G.
	κ Draconis SP.	189.40	2.45,3	43,2	42,4	41,6	44,8	47,4					189.42.44,05	G.
	α Cassiopeiæ R. M. . .	70.15	2.17,7	16,8	14,2	14,8	16,0	19,1	9,417	+14,94			70.17.31,32	G.
	α Cassiopeiæ	243.20	1.35,8	31,4	30,7	29,8	33,2	35,1					243.21.32,63	G.
	* R. 0 ^h . 38 ^m . 41 ^s . . .	287.20	1.8,8	7,8	6,0	6,2	7,8	8,9					287.21.7,55	G.
	Σ 63.	288.0	2.50,8	49,8	48,0	47,4	50,0	50,8					288.2.49,40	G.
Dec. 14	ζ Cephei R. M.	72.0	2.15,5	11,5	12,8	11,7	12,1	15,1	8,851	+26,74			72.2.39,81	G.
	ζ Cephei	241.35	1.27,8	22,5	22,9	22,0	23,2	26,8					241.36.24,17	G.
	ϵ Cephei R. M.	70.50	1.29,0	25,2	25,2	24,8	24,8	29,8	6,564	+1.14,45			70.52.40,88	G.
	ϵ Cephei	242.45	1.25,8	20,0	21,0	19,8	22,6	24,0					242.46.22,17	G.
	α U. Maj. SP. R. M. . .	132.0	0.29,0	26,1	26,0	26,9	26,9	30,8	14,023	-1.21,15			131.59.17,45	G.
	(b) α Ursæ Maj. SP. . .	181.35	4.56,9	54,1	55,3	55,0	54,0	58,4					181.39.55,62	G.
	Uranus.	301.55	0.20,8	18,2	18,4	16,2	17,9	21,0			+2	-0,03	301.55.18,72	G.
	(c) Σ 4. <i>np.</i>	291.25	1.31,4	28,3	29,5	27,9	27,1	30,9					291.26.29,15	G.
	κ Draco. SP. R. M. . .	123.55	1.33,6	31,3	31,2	30,9	30,4	33,9	10,810	-14,13			123.56.17,72	G.
	κ Draconis SP.	189.40	2.47,6	45,0	45,2	43,8	45,1	48,4					189.42.45,78	G.
	58 Piscium	287.50	4.24,0	21,8	22,0	20,5	21,7	25,1					287.54.22,42	G.
	(d) Piazzì O. 208. . . .	287.5	0.36,0	34,2	32,4	33,1	32,8	35,9					287.5.34,05	G.
	A.S.C. 93	285.55	0.25,1	23,2	21,8	21,3	21,8	24,3					285.55.22,90	G.
	μ Cassiopeiæ	244.50	3.14,7	9,8	10,9	9,6	10,1	14,1					244.53.11,47	G.
	51 Androm. R. M. . . .	62.20	3.25,2	23,0	21,4	21,3	21,2	26,3	0,039	+3.30,55			62.26.53,53	G.
	51 Andromedæ	251.10	2.12,2	8,2	9,4	5,9	8,5	10,8					251.12.9,12	G.
	ι Trianguli. <i>sp.</i> . . .	269.25	2.55,1	51,5	52,1	50,4	51,8	55,8					269.27.52,72	G.
	Σ 274. <i>sp.</i>	298.35	2.29,8	28,0	27,1	26,3	26,2	30,8					298.37.27,98	G.
	γ Ceti R. M.	17.10	2.29,9	28,0	28,4	27,4	27,9	31,4	10,970	-17,47			17.12.11,31	G.
	γ Ceti	296.25	1.54,0	50,9	51,9	51,4	51,0	53,4					296.26.52,05	G.
	) S.L. M.	278.30	4.37,4	33,1	36,0	32,8	33,0	38,0	9,231	+18,81			278.34.53,76	G.
	) S.L. M. . . . .	...	...	...	...	...	...	...	9,337	+16,82	+1	+2,25	278.34.54,02	G.
	) S.L. M. . . . .	...	...	...	...	...	...	...	9,465	+14,23	+2	+4,50	278.34.53,68	G.
Dec. 15	\odot N.L. M.	322.0	1.26,0	24,1	22,8	23,8	23,8	26,6	15,220	-1.46,12			321.59.38,36	G.
	\odot S.L.	322.30	1.61,0	59,0	58,8	58,5	58,3	60,9					322.31.59,37	G.
Dec. 17	\odot N.L. M.	322.5	1.24,9	24,0	23,1	23,3	23,3	26,9	14,210	-1.25,05			322.4.59,17	G.
	\odot S.L.	322.35	2.25,8	24,2	23,0	23,7	23,0	27,2					322.37.24,43	G.
	Uranus.	301.50	4.26,8	26,8	26,4	22,9	22,8	27,1			+2	-0,03	301.54.25,34	G.
	α Androm. R. M. . . .	42.45	4.26,0	26,0	24,8	24,0	24,5	28,8	6,251	+1.20,98			42.50.46,56	G.
	α Andromedæ	270.45	3.16,8	13,0	14,2	12,1	10,0	16,1					270.48.13,63	G.
	δ U. Maj. SP. R. M. . .	136.40	2.23,7	23,3	22,0	22,1	20,5	25,9	16,862	-2.20,36			136.40.2,51	G.
	δ Ursæ Maj. SP. . . .	176.55	4.3,0	0,9	2,0	0,6	0,7	4,4					176.59.1,83	G.
	κ Draco. SP. R. M. . .	123.55	2.32,1	30,8	30,2	29,9	28,9	33,0	13,713	-1.14,68			123.56.16,09	G.
	κ Draconis SP.	189.40	2.48,3	46,8	47,0	46,0	44,8	49,9					189.42.47,07	G.
	(e) α Cassiopeiæ R. M. . .	70.15	2.35,0	33,5	32,1	33,1	31,4	37,1	10,190	-1,19			70.17.32,44	G.
	α Cassiopeiæ	243.20	1.36,0	32,0	32,5	31,0	30,9	35,9					243.21.33,02	G.
	58 Piscium	287.50	4.22,6	20,4	20,9	19,2	18,9	23,2					287.54.20,77	G.
	Piazzì O. 208.	287.5	0.34,9	33,8	32,8	32,8	31,0	35,1					287.5.33,38	G.
	A.S.C. 93	285.55	0.23,9	22,3	21,0	21,6	18,9	23,4					285.55.21,83	G.
	ϕ Piscium.	275.15	1.36,3	32,8	34,0	31,3	30,6	35,4					275.16.33,37	G.
	ξ Androm. R. M. . . .	59.15	2.42,0	40,4	39,7	39,5	39,2	43,0	5,192	+1.43,06			59.19.23,63	G.
	ξ Andromedæ	254.15	4.42,7	38,9	41,4	38,2	39,0	42,8					254.19.40,38	G.
	51 Androm. R. M. . . .	62.20	4.17,0	16,8	15,0	14,3	14,4	19,0	2,540	+2.38,38			62.26.54,36	G.
	51 Andromedæ	251.10	2.12,2	8,0	9,2	6,4	6,4	10,2					251.12.8,68	G.
	Piazzì I. 191. <i>sp.</i> . . .	288.55	4.27,0	24,0	24,3	23,4	21,6	27,0					288.59.24,45	G.
	(f) γ Androm. R. M. . .	56.5	4.31,2	31,0	30,0	29,1	29,9	34,1	4,269	+2.2,32			56.11.33,10	G.
	γ Andromedæ	257.25	2.32,9	28,8	31,0	28,8	28,0	32,6					257.27.30,30	G.
	Σ 644.	261.55	1.22,4	19,9	21,2	19,3	18,0	20,8					261.56.20,23	G.
	32 Orionis M.	293.10	2.22,1	20,0	20,8	17,8	16,2	20,9	11,278	-23,88			293.11.55,70	G.
	33 Orionis	295.50	1.10,1	8,4	8,6	7,2	4,4	8,8					295.51.7,88	G.

- (a) Pretty well bisected by the fixed wire.
 (b) No correction for Runs.
 (c) The stars are nearly equal.

- (d) A star of the 6th or 7th magnitude: no other near.
 (e) Too near the fixed wire.
 (f) Mercury disturbed.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	° ' "	Inch.	°	°	' "	' "	"	' "	° ' "	"	
31,50	15.51.43,36	29,974	51,6	51,4	16,56				53.39.8,20	+38,45	Σ 1. sf.
	-57.6.47,20	29,966	51,8	51,3	1.29,86				-19.21.8,78	-43,78	κ Draco. SP. R.
	-57.6.47,70								-19.21.9,28		κ Draconis SP.
31,98	-3.27.59,57				3,53				34.19.5,18	+42,28	α Cassiopeiae R.
	-3.27.59,12				49,78				34.19.5,63	+30,54	α Cassiopeiae.
	40.31.35,80				51,01				78.19.33,86	+30,28	* R.O ^b .38 ^m .41 ^s .
	41.13.17,65								79.1.16,94		Σ 63.
31,99	-5.13.8,06	30,050	49,1	48,5	5,37				32.33.54,85	+38,14	ζ Cephei R.
	-5.13.7,58				4,16				32.33.55,33	+38,30	ζ Cephei.
	-4.3.9,13								33.43.54,99		ε Cephei R.
31,52	-4.3.9,58								33.43.54,54	+41,30	ε Cephei.
	-65.9.34,70	30,046	48,4	48,0	2.6,37				-27.24.32,79		α U. Maj. SP. R.
	-65.9.36,13				1.24,10	0,35			-27.24.34,22		α Ursæ Maj. SP.
31,04	55.5.46,97				57,98				92.54.19,00	+29,35	Uranus.
	44.36.57,40								82.25.3,66	+43,97	Σ 4. np.
	-57.6.45,97				1.30,71				-19.21.8,40	+30,29	κ Draco. SP. R.
31,75	-57.6.45,97				51,23				-19.21.8,40	+30,49	κ Draconis SP.
	41.4.50,67				49,79				78.52.50,18	+30,77	58 Piscium.
	40.16.2,30				47,77				78.4.0,37	+41,21	Piazzi O. 208.
31,33	39.5.51,15				1,99				76.53.47,20	+38,27	A.S.C. 93.
	-1.56.20,28				4,50				35.50.46,01	+31,71	μ Cassiopeiae.
	4.22.38,22				24,58				42.9.51,00	+22,83	51 Androm. R.
31,68	4.22.37,37	30,040	48,2	47,0	1.14,75				42.9.50,15	+22,64	51 Andromedæ.
	22.38.20,97				1.9,19				60.25.53,83		Trianguli. sp.
	51.47.56,23				36,49	29.11,94			89.36.19,26		Σ 274. sp.
31,33	49.37.20,44								87.25.37,91		γ Ceti R.
	49.37.20,30	30,036	48,0	46,6					87.25.37,77		γ Ceti.
	31.45.22,01								68.48.41,35).
31,33	31.45.22,27								68.48.41,61).
	31.45.21,93								68.48.41,27).
30,10	75.10.6,61	30,064	49,8	50,8	3.37,39	8,40			113.17.0,48		⊙.
	75.42.27,62				3.45,68	8,43			113.16.56,55		⊙.
32,17	75.15.27,42	29,954	50,0	50,0	3.38,29	8,41			113.22.22,38		⊙.
	75.47.52,68				3.46,67	8,43			113.22.22,40		⊙.
	55.4.53,59	30,062	45,9	44,1	1.24,78	0,35			92.53.26,30		Uranus.
31,58	23.58.45,19				26,38				61.46.19,85	+35,93	α Androm. R.
	23.58.41,88				2.40,23				61.46.16,54	-42,74	α Andromedæ.
	-69.50.30,76				1.31,61				-32.6.2,71	-44,53	δ U. Maj. SP. R.
32,73	-69.50.29,92				3,60				-32.6.1,87	+42,56	δ Ursæ Maj. SP.
	-57.6.44,34				51,73				-19.21.7,67	+30,13	κ Draco. SP. R.
	-57.6.44,68				50,28				-19.21.8,01	+30,34	κ Draconis SP.
32,01	-3.28.0,69				48,23				34.19.3,99	+33,48	α Cassiopeiae R.
	-3.27.58,73				32,20				34.19.5,95	+38,73	α Cassiopeiae.
	41.4.49,02				7,83				78.52.49,03	+38,52	58 Piscium.
31,52	40.16.1,63				4,55				78.4.0,19	+27,59	Piazzi O. 208.
	39.5.50,08				53,78				76.53.46,59	+35,22	A.S.C. 93.
	28.27.1,62	30,072	45,0	43,3	16,12				66.14.42,10	+11,06	φ Piscium.
31,70	7.30.8,12				1.2,57				45.17.24,23	+6,60	ξ Andromedæ R.
	7.30.8,63				1.8,67				45.17.24,74	+6,44	ξ Andromedæ.
	4.22.37,39								42.9.50,22		51 Androm. R.
31,70	4.22.36,93								42.9.49,76		51 Andromedæ.
	42.9.52,70								79.57.54,76		Piazzi I. 191. sp.
	10.37.58,65								48.25.18,09		γ Andromedæ R.
31,70	10.37.58,55								48.25.17,99		γ Andromedæ.
	15.6.48,48	30,108	43,0	41,9					52.54.12,88		Σ 644.
	46.22.23,95			41,6					84.10.34,80		32 Orionis.
	49.1.36,13								86.49.53,08		33 Orionis.

Coincidence of Micrometer Wire with fixed Wire = 10',122, 10',126, 10',133, 10',143, 10',147 at the five wires.

One Micrometer Revolution = 20'',859.

Correction for Runs = -0'',7.

Adopted Zenith Point = 246°. 49'. 31'',75.

Assumed Co-latitude = 37°. 47'. 8'',28.

Month and Day.	NAME OF STAR or PLANET.	Pointer.	Microscopes.						Microm. Reading.	Correction to Fixed Wire.	Interval of Obs. from Middle Wire.	Correction to Middle Wire.	Concluded reading of Circle.	Observer.
			A	B	C	D	E	F						
Dec. 17	(a) S.L. M.	275. 5	0. 56,8	55,1	55,2	54,4	51,8	56,1	8,777	+ 28,05	-2	+ 1,72	275. 6. 24,65	G.
	S.L. M. ....	...	...	...	...	...	...	...	8,725	+ 29,22	-1	+ 0,86	275. 6. 24,96	G.
	N.L.	274. 30	4. 25,0	22,0	26,3	21,5	19,9	25,0	10,105	+ 0,80	+1	- 0,86	274. 34. 23,18	G.
	N.L. M. ....	...	...	...	...	...	...	...	10,066	+ 1,69	2	- 1,72	274. 34. 23,15	G.
Dec. 19	S.L. M.	322. 40	0. 5,9	2,5	3,2	4,3	2,8	5,1	8,200	+ 40,32			322. 40. 44,29	C.
	N.L.	322. 5	3. 24,6	21,3	21,8	22,2	20,0	25,1					322. 8. 22,42	C.
	(b) α Lyræ R. M.	53. 10	4. 56,3	54,9	53,6	53,3	54,4	57,6	8,698	+ 29,79	-1	- 0,12	53. 15. 24,57	C.
	α Lyræ	260. 20	3. 41,3	36,0	37,7	35,9	37,5	39,0					260. 23. 37,82	C.
	(c) Polaris R. M.	103. 5	0. 32,0	29,3	28,2	30,0	26,8	30,7	12,377	- 46,80		- 0,02	103. 4. 42,66	C.
	Polaris.	210. 30	4. 24,6	21,5	23,0	20,3	20,6	24,3				+ 0,36	210. 34. 22,64	C.
Dec. 21	N.L. M.	322. 10	0. 50,7	49,0	49,2	50,6	50,6	50,5	12,450	- 48,34			322. 10. 1,74	C.
	S.L.	322. 40	2. 30,0	28,3	26,6	29,0	30,5	31,4					322. 42. 29,25	C.
	α Cassiopeæ R. M.	70. 15	1. 4,5	0,6	0,5	1,4	1,4	3,8	5,849	+ 1,29,36			70. 17. 31,38	C.
	α Cassiopeæ.	243. 20	1. 36,0	30,5	30,6	30,7	32,7	33,2			+1	+ 0,22	243. 21. 32,47	C.
	(d) Polaris R. M.	103. 0	4. 34,5	30,5	30,8	30,0	30,3	32,0	9,494	+ 13,34		- 0,33	103. 4. 44,26	C.
	Polaris.	210. 30	4. 23,0	20,1	20,0	18,5	20,3	22,3				+ 0,03	210. 34. 20,63	C.
	(e) γ Arietis R. M.	33. 5	2. 42,6	40,3	37,6	38,3	39,8	41,8	6,730	+ 1,10,98			33. 8. 50,98	C.
	γ Arietis.	280. 30	0. 9,4	6,3	7,5	7,5	8,2	8,8			+3	+ 0,45	280. 30. 8,40	C.
Dec. 22	S.L. M.	322. 40	2. 25,4	22,3	21,5	22,6	24,1	25,4	9,454	+ 14,17			322. 42. 37,67	C.
	N.L.	322. 10	0. 13,3	11,7	10,2	13,2	12,8	13,6					322. 10. 12,47	C.
	Uranus.	301. 50	2. 40,0	37,6	36,3	36,1	37,3	38,0			+2	- 0,03	301. 52. 37,45	C.
Dec. 23	(f) ε Persei R. M.	54. 5	4. 56,9	57,3	53,5	54,2	54,6	57,9	9,656	+ 10,18			54. 10. 5,85	C.
	ε Persei.	259. 25	3. 59,2	54,5	56,5	52,8	54,9	57,6			+2	+ 0,49	259. 28. 56,36	C.
	k Tauri R. M.	39. 25	0. 7,3	6,9	5,5	5,7	5,2	8,2	9,247	+ 18,57	-1	- 0,07	39. 25. 24,97	C.
	k Tauri.	274. 10	3. 41,0	37,8	40,0	36,2	37,4	40,0			+1	+ 0,07	274. 13. 38,75	C.
	Σ 652.	298. 10	0. 45,1	42,9	43,3	41,5	41,8	43,5					298. 10. 43,00	C.
	Σ 758.	299. 15	2. 62,3	58,0	59,6	57,2	57,8	60,6					299. 17. 59,22	C.
Dec. 24	N.L. M.	322. 5	4. 4,9	1,3	2,5	2,5	1,5	6,0	10,348	- 4,25			322. 8. 58,82	C.
	S.L.	322. 40	1. 20,4	16,4	16,5	18,0	16,6	20,2					322. 41. 18,00	C.
	α Lyræ R. M.	53. 15	0. 39,5	36,0	35,2	36,5	35,7	39,6	10,755	- 12,90	-1	- 0,12	53. 15. 24,06	C.
	(g) α Lyræ M.	260. 20	3. 56,5	50,5	53,4	51,0	52,3	54,3	10,755	- 12,90	+1	+ 0,12	260. 23. 40,17	C.
	Uranus.	301. 50	1. 46,5	42,7	44,8	42,6	42,2	45,4			+2	- 0,03	301. 51. 43,99	C.
	55 Piscium.	278. 25	1. 62,0	56,4	60,3	56,6	57,5	59,9					278. 26. 58,75	C.
	A.S.C. 93.	285. 55	0. 24,5	19,7	22,2	19,6	19,9	22,5					285. 55. 21,40	C.
	A.S.C. 175.	292. 10	0. 52,9	49,4	51,5	50,2	48,7	52,6					292. 10. 50,87	C.
	A.S.C. 203.	297. 55	1. 56,6	53,1	54,9	53,0	51,7	55,8					297. 56. 54,15	C.
	(b) 9 Persei R. M.	69. 40	3. 37,2	34,9	34,1	32,8	32,5	37,0	7,876	+ 47,16	-1	- 0,21	69. 44. 21,65	C.
	9 Persei.	243. 50	4. 47,6	42,0	44,1	40,5	41,2	46,4			+1	+ 0,21	243. 54. 43,78	C.
Dec. 27	μ Persei R. M.	62. 35	1. 36,0	33,5	32,2	32,6	32,6	36,1	8,391	+ 36,77	+1	- 0,17	62. 37. 10,35	C.
	μ Persei.	251. 0	1. 55,1	51,3	52,3	49,6	50,6	54,4			+3	+ 1,50	251. 1. 53,62	C.
	Σ 644.	261. 55	1. 21,0	16,4	19,6	17,2	17,1	19,8					261. 56. 18,45	C.
	(h) 125 Tauri R. M.	40. 20	4. 35,9	33,6	32,9	32,3	32,7	36,0	7,781	+ 49,50	+1	- 0,07	40. 25. 23,35	C.
	125 Tauri.	273. 10	3. 40,6	36,9	39,5	35,5	35,7	40,2			+4	+ 1,16	273. 13. 39,04	C.
	Σ 848.	285. 0	2. 24,5	20,6	23,3	19,6	20,5	23,9			+2	+ 0,15	285. 2. 22,10	C.
	(i) Piazzini VI. 62.	277. 45	4. 63,3	59,4	61,8	59,3	59,6	61,0			+2	+ 0,23	277. 50. 0,96	C.
Dec. 28	S.L. M.	322. 30	2. 60,2	56,0	58,3	57,8	58,1	60,4	9,474	+ 13,98			322. 33. 12,30	C.
	N.L.	322. 0	0. 51,4	47,5	49,0	50,1	49,6	51,6					322. 0. 49,83	C.
	(h) Uranus.	301. 45	4. 46,9	42,3	45,5	43,0	44,8	45,7			+4½	- 0,11	301. 49. 44,36	C.
	9 Persei R. M.	69. 40	3. 59,5	57,4	58,3	56,0	57,3	59,6	9,128	+ 21,20			69. 44. 19,02	C.
	9 Persei.	243. 50	4. 46,7	39,9	43,4	39,8	41,6	45,5			+2	+ 0,86	243. 54. 43,44	C.
Dec. 30	Σ 652.	298. 10	0. 46,7	46,6	42,8	46,4	44,2	47,3					298. 10. 45,63	C.
	Σ 734.	300. 50	1. 6,5	6,6	3,6	5,9	4,0	7,4					300. 51. 5,62	C.
	α Lyncis R. M.	76. 5	4. 28,6	25,0	22,9	23,6	23,7	29,0	8,698	+ 29,98	-1½	- 0,63	76. 9. 54,60	C.
	α Lyncis.	237. 25	4. 9,1	7,9	5,7	6,6	6,9	11,0			+1	+ 0,28	237. 29. 7,95	C.

Dec. 19, 7½^h. Molyneux fast on Hardy, 45°0; and Dec. 21, 48°0.

Runs taken Dec. 24, 8^h; and Dec. 30, 3½^h. Coincidences at the five wires taken Dec. 28, 4^h.

(a) The observations of N.L. very good. S.L. was not full. Correction applied for defect of illumination = + 0".14. (b) Good. (c) Times of observation by Molyneux, 1^h. 3^m. 20^s and 1^h. 6^m. 31^s. (d) Times of observation by Molyneux, 1^h. 1^m. 26^s and 1^h. 3^m. 7^s. (e) The wires were placed mid-way between the two stars, and consequently 4".40 has been added in each observation to obtain the N.P.D. of the south star. This correction was inferred from micrometer measures taken with the Northumberland Telescope. (f) Bisection doubtful, the mercury being disturbed. (g) By mistake on the micrometer wire. (h) Small negative correction for Runs. (i) No correction for Runs.

Sec. of apparent Zenith Point.	Apparent Zenith Distance.	Barom.	Thermometer.		Refraction.	Parallax.	Micrometer for opposite Limb.	Semi- diameter.	Geoc. N. P. D. of Center.	Corr. to Mean N.P.D. Jan. 1, 1842.	NAME OF STAR or PLANET.
			Attach.	Free.							
"	"	Inch.	"	"	"	"	"	"	"	"	"
31,20	28.16.52,90	30,108	42,7	41,2					65.21.36,21		⊙.
	28.16.53,21				32,15	27.11,51			65.21.36,52		⊙.
	27.44.51,43							15.45,75	65.21.33,99		⊙.
	27.44.51,37				31,44	26.42,91			65.21.33,93		⊙.
	27.44.51,40								65.21.33,96		⊙.
	75.51.12,54	30,448	45,2	46,9	3.52,80	8,44		16.17,00	113.25.48,18		⊙.
	75.18.50,67				3.44,18	8,41			113.25.51,72		⊙.
	13.34.7,18	30,436	45,5	46,4					51.21.29,89	+4,70	α Lyrae R.
	13.34.6,07				14,43				51.21.28,78		α Lyrae.
	-36.15.10,91	30,412	41,7	40,2					1.31.13,03	+44,83	Polaris R.
32,65	-36.15.9,11				44,34				1.31.14,83		Polaris.
31,92	75.20.29,99	30,226	49,6	51,8	3.40,71	8,42		16.17,10	113.27.27,66		⊙.
	75.52.57,50				3.49,24	8,44			113.27.29,48		⊙.
	-3.27.59,63	30,208	49,1	49,2					34.19.5,08	+42,68	α Cassiopeiae R.
	-3.27.59,28				3,57				34.19.5,43		α Cassiopeiae.
	-36.15.12,51	30,218	49,0	48,8					1.31.12,48	+45,13	Polaris R.
	-36.15.11,12				43,29				1.31.13,87		Polaris.
	33.40.40,77		49,2	49,2					71.28.32,75	+29,95	γ Arietis R.
	33.40.36,65				39,30				71.28.28,63		γ Arietis.
	75.53.5,92	29,984	51,2	51,6	3.47,53	8,44		16.17,10	113.27.36,19		⊙.
	75.20.40,72				3.39,08	8,42			113.27.36,76		⊙.
31,11	55.3.5,70	29,906	47,5	47,1	1.23,73	0,35			92.51.37,36		Uranus.
	12.39.25,90	29,516	41,5	39,6					50.26.47,38	+22,93	ε Persei R.
	12.39.24,61				13,20				50.26.46,09		ε Persei.
	27.24.6,78	29,512	40,5	38,6					65.11.45,59	+12,18	k Tauri R.
	27.24.7,00				30,53				65.11.45,81		k Tauri.
	51.21.11,25			38,2	1.13,61				89.9.33,14	+7,65	Σ 652.
	52.28.27,47	29,506	39,4	38,0	1.16,62				90.16.52,37	+4,65	Σ 758.
	75.19.27,07	29,596	42,2	41,2	3.40,71	8,42		16.17,20	113.26.24,84		⊙.
	75.51.46,25				3.49,20	8,44			113.26.18,09		⊙.
	13.34.7,69	29,600	42,2	42,1					51.21.30,13	+3,20	α Lyrae R.
32,12	13.34.8,42				14,16				51.21.30,86		α Lyrae.
	55.2.12,24	29,662	40,0	38,0	1.24,59	0,35			92.50.44,76		Uranus.
	31.37.27,00	29,678	38,8	37,5	36,55				69.25.11,83	+33,06	55 Piscium.
	39.5.49,65			36,7	48,30				76.53.46,23	+30,25	A.S.C. 93.
	45.21.19,12	29,692	37,7	35,7	1.0,31				83.9.27,71	+26,90	A.S.C. 175.
	51.7.22,40	29,694		36,0	1.13,80				88.55.44,48	+24,13	A.S.C. 203.
	-2.54.49,90		37,6	36,5					34.52.15,35	+37,22	9 Persei R.
	-2.54.47,97				3,03				34.52.17,28		9 Persei.
	4.12.21,40	29,592	39,7	37,6					41.59.34,03	+22,37	μ Persei R.
	4.12.21,87				4,35				41.59.34,50		μ Persei.
31,20	15.6.46,70	29,612	38,8	37,0	16,02				52.54.11,00	+11,94	Σ 644.
	26.24.8,40	29,638	39,0	37,3	29,45				64.11.46,13	+6,25	125 Tauri R.
	26.24.7,29								64.11.45,02		125 Tauri.
	38.12.50,35	29,642	39,2	36,6	46,75				76.0.45,38	+1,16	Σ 848.
	31.0.29,21	29,644			35,70				68.48.13,19	+0,39	Piazzi VI. 62.
	75.43.40,55	29,978	40,5	41,0	3.50,04	8,43		16.17,30	113.18.13,14		⊙.
	75.11.18,08				3.41,56	8,41			113.18.16,81		⊙.
	55.0.12,61	30,072	39,1	37,1	1.25,81	0,35			92.48.46,35		Uranus.
	-2.54.47,27	30,118	37,5	35,6					34.52.17,93	+37,62	9 Persei R.
	-2.54.48,31				3,08				34.52.16,89		9 Persei.
31,28	51.21.13,88	30,088	49,9	50,1	1.13,22				89.9.35,38	+6,77	Σ 652.
	54.1.33,87				1.20,63				91.50.2,78	+4,03	Σ 734.
	-9.20.22,85		50,4	50,3					28.26.35,79	+2,96	α Lyncis R.
	-9.20.23,80				9,64				28.26.34,84		α Lyncis.

Coincidence of Micrometer Wire with fixed Wire = 10',122, 10',126, 10',133, 10',143, 10',147 at the five wires. From

Dec. 23 = 10',133, 10',137, 10',144, 10',154, 10',158.

One Micrometer Revolution = 20",859.

Correction for Runs = -0",7. From Dec. 23 = -0",4. From Dec. 27 = -1",5.

Adopted Zenith Point = 246°.49'.31",75.

Assumed Co-latitude = 37°.47'.8",28.

MEAN NORTH POLAR DISTANCES OF STARS

OBSERVED IN THE YEAR 1842,

AS DEDUCED FROM EACH DAY'S OBSERVATION,

WITHOUT CORRECTIONS FOR THE DISCORDANCE OF ZENITH POINTS,
AND FOR THE ALTERATION OF CO-LATITUDE:

WITH

A CATALOGUE

OF THE

CONCLUDED MEAN NORTH POLAR DISTANCES,

JANUARY 1, 1842,

CORRECTED FOR THE DISCORDANCE OF ZENITH POINTS,
AND FOR THE ALTERATION OF CO-LATITUDE.

α Andromedæ.	Σ 24.	α Cassiopeiæ R. <i>continued.</i>	δ Piscium.
Feb. 1.....61. 46. 53,30 16 54,12 19 53,93	Sept. 20.....64. 44. 10,34 Oct. 26 10,27 28 9,69	Nov. 3.....34. 19. 47,41 12 47,52 30 47,51	Aug. 23.....83. 16. 33,17
May 1 53,24		Dec. 8 46,41 13 47,46 17 46,55 21 47,76	65 Piscium.
Sept. 2 53,65 19 54,35	Σ 25.		Jan. 17.....63. 9. 2,39
Oct. 4 54,50 12 53,29	Oct. 6.....74. 53. 10,60 10 8,36	α Cassiopeiæ SP.	Oct. 10 4,17
Dec. 17 52,47	d Piscium.	Mar. 26.....34. 19. 45,15	Σ 63.
α Andromedæ R.	Aug. 23.....82. 41. 14,92	Apr. 22 46,84	Sept. 20.....79. 1. 47,41
Feb. 1.....61. 46. 55,49 16 55,84 19 54,20	Sept. 19 15,11 20 14,59	May 4 47,91	Oct. 21 48,32
May 1 55,61	α Cassiopeiæ.	α Cassiopeiæ SP. R.	Dec. 8 47,86 13 47,22
Sept. 2 54,74 19 55,19	Jan. 17.....34. 19. 48,03	Mar. 26.....34. 19. 48,38	Piazzi O. 208.
Oct. 4 54,01 12 54,60	Feb. 1 46,69 2 47,24	Apr. 22 48,43	Oct. 10.....78. 4. 29,97
Dec. 17 55,78	Apr. 4 48,07 5 48,32 15 48,95 19 48,63 28 47,81	May 4 (41,59)	Dec. 14 30,86 17 30,53
Σ 1.	May 1 48,25 4 49,45	55 Piscium.	A.S.C. 93.
Dec. 13.....53. 39. 46,65	Oct. 10 47,88 24 48,08 28 48,27	Dec. 24.....69. 25. 44,89	Sept. 20.....76. 54. 16,73
Σ 4.	Nov. 3 48,86 12 48,20 30 48,13	Σ 51.	Oct. 10 15,40
Nov. 26.....82. 25. 32,52	Dec. 8 48,72 13 47,91 17 48,51 21 48,11	Oct. 21.....73. 30. 32,30 24 31,47	Dec. 14 17,97 17 17,21 24 16,48
Dec. 14 33,01	α Cassiopeiæ R.	Nov. 3 31,87	ϵ Piscium.
γ Pegasi.	Jan. 17.....34. 19. 48,24	* \mathcal{R} . 0 ^h . 38 ^m . 41 ^s .	Sept. 20.....82. 57. 42,50
Oct. 4.....75. 41. 43,36 6 41,34 24 40,58 31 42,35	Feb. 1 48,14 2 49,89	Oct. 21.....78. 20. 5,08 24 5,49	ϵ Piscium R.
Dec. 8 40,37	Apr. 4 48,68 5 50,55 15 49,14 19 47,23 28 47,82	Dec. 8 3,90 13 4,40	Sept. 20.....82. 57. 41,54
γ Pegasi R.	May 1 47,53 4 47,10	58 Piscium.	μ Cassiopeiæ.
Oct. 4.....75. 41. 42,24 6 42,29 24 42,34 31 42,69	Oct. 10 47,42 24 47,86 28 48,15	Sept. 20.....78. 53. 20,23	Dec. 14.....35. 51. 27,22
Dec. 8 41,89		Oct. 10 19,70	Polaris.
Σ 19.		Dec. 14 20,47 17 19,16	Jan. 17..... 1. 31. 59,32 28 58,13
Sept. 20.....54. 14. 50,55		ζ Andromedæ.	Feb. 1 57,78 16 58,23 18 57,97
Oct. 24 49,66 26 50,88		Jan. 17.....66. 35. 35,15	Apr. 5 59,41 19 58,69 20 58,71 24 57,67 25 59,18
		Feb. 1 34,29	
		ζ Andromedæ R.	
		Jan. 17.....66. 35. 36,02	
		Feb. 1 37,26	

Polaris continued.	Polaris SP. continued.	η Piscium.	γ Andromedæ.
Apr. 26..... 1. 31. 61,00 27 59,87 28 58,69 29 58,46 May 4 58,68 9 59,34 10 59,58 Oct. 10 60,80 10 60,68 Nov. 3 60,61 12 58,94 30 60,03 Dec. 19 59,66 21 59,00	Aug. 1..... 1. 31. 59,00 1 60,03 1 60,33 15 59,62 Oct. 5 59,06 5 58,83 11 58,53 26 58,94 27 58,77 31 59,96	Oct. 20..... 75. 28. 16,27 η Piscium R. Oct. 20..... 75. 28. 14,62 A.S.C. 175. Jan. 15..... 83. 9. 55,33 17 55,30 Dec. 24 54,61 51 Andromedæ. Oct. 20..... 42. 10. 30,14 Dec. 14 28,42 17 28,28 51 Andromedæ R. Oct. 20..... 42. 10. 28,73 Dec. 14 29,27 17 28,74 Piazzì I. 191. Jan. 15..... 79. 58. 23,12 17 24,15 Dec. 17 22,35 γ Arietis. Dec. 21..... 71. 28. 58,58 γ Arietis R. Dec. 21..... 71. 29. 2,70 β Arietis. Feb. 16..... 69. 57. 59,86 19 60,06 July 1 60,77 A.S.C. 203. Jan. 15..... 88. 56. 8,97 17 8,60 Dec. 24 8,61	Jan. 17..... 48. 25. 53,25 28 52,93 Feb. 16 53,20 Oct. 20 54,69 Nov. 18 54,14 Dec. 17 53,31 γ Andromedæ R. Jan. 17..... 48. 25. 53,67 28 53,95 Feb. 16 54,37 Oct. 20 54,27 Nov. 18 54,66 Dec. 17 53,41 α Arietis. Feb. 5..... 67. 17. 14,64 α Arietis R. Feb. 5..... 67. 17. 15,42 Σ 221. Jan. 15..... 70. 24. 11,28 17 10,93 24 10,70 ϵ Trianguli. Nov. 18..... 60. 26. 25,05 Dec. 14 25,54 θ^1 Arietis. Nov. 18..... 70. 49. 56,44 9 Persei. Dec. 24..... 34. 52. 54,50 28 54,51 9 Persei R. Dec. 24..... 34. 52. 52,57 28 55,55 Σ 274. Feb. 1..... 89. 36. 41,14 5 40,62 Dec. 14 42,09
Polaris R. Jan. 17..... 1. 31. 57,99 28 58,79 Feb. 1 58,85 16 59,45 18 59,18 Apr. 5 58,36 19 59,00 20 58,23 24 56,53 25 58,45 26 58,59 27 56,56 28 56,88 29 58,03 May 4 57,22 9 59,83 10 57,79 Oct. 10 57,49 10 58,01 Nov. 3 57,21 12 57,95 30 57,53 Dec. 19 57,86 21 57,61	Polaris SP. R. Apr. 8..... 1. 31. 61,62 20 58,59 23 58,24 25 58,91 26 58,05 28 60,27 May 4 59,20 14 60,87 23 60,75 24 61,78 25 60,50 31 61,12 June 13 59,96 Aug. 1 62,31 1 61,27 1 61,89 15 61,68 Oct. 5 61,79 5 61,63 11 62,30 26 61,85 27 60,71 31 62,01	ϕ Piscium. Jan. 17..... 66. 15. 16,55 28 15,96 Dec. 17 15,58 42 Ceti. Jan. 15..... 91. 20. 25,53 17 25,25 25 25,34 ξ Andromedæ. Oct. 10..... 45. 18. 3,72 Dec. 17 3,47 ξ Andromedæ R. Oct. 10..... 45. 18. 3,72 Dec. 17 2,96	
Polaris SP. Apr. 8 1. 31. 57,14 20 57,79 23 58,41 25 58,14 26 58,05 28 58,05 May 4 57,00 14 58,32 23 58,92 24 58,09 25 58,10 31 58,66 June 13 58,39			

Σ 285.	Σ 401.	Aldebaran <i>continued</i> .	Σ 652.
Jan. 17.....57. 16. 7,07 24 7,02 27 6,89	Feb. 1.....62. 58. 19,61 5 20,36 17 19,72	Apr. 26.....73. 48. 49,77 27 50,25 29 48,52 30 49,70 May 3 49,59	Dec. 23.....89. 9. 40,79 30 42,15
ν Arietis.	η Tauri.		Capella.
Feb. 16.....68. 43. 29,77 17 29,50	Feb. 17.....66. 23. 17,39 18 17,52 19 17,76 21 17,85 Dec. 3 16,80	Aldebaran R.	Jan. 25.....44. 10. 12,39
Σ 291.	η Tauri R.	Feb. 15.....73. 48. 51,06 Apr. 26 51,67 27 51,94 29 51,44 30 52,72 May 3 52,92	Feb. 15 11,52 18 12,73 Mar. 1 11,96 Apr. 7 12,42 29 13,45 30 13,40 May 2 13,51 28 14,08
Jan. 17.....71. 52. 51,68 24 51,17 27 51,74	Feb. 17.....66. 23. 19,11 18 19,09 19 19,30 21 18,83 Dec. 3 20,72	2 Camelopardi.	June 3 13,33 10 13,28 13 12,35 July 25 13,47
γ Ceti.		Feb. 19.....36. 50. 46,02 21 46,00 Mar. 1 44,93	Capella R.
Dec. 14.....87. 26. 0,41	ϵ Persei.	Σ 577.	Jan. 25.....44. 10. 13,53
Dec. 14.....87. 26. 0,55	Dec. 23.....50. 27. 9,02	Feb. 15.....52. 47. 48,18 17 47,84 18 48,65	Feb. 15 12,01 18 13,00 Mar. 1 13,51
ϵ Arietis.	ϵ Persei R.	τ Tauri.	Apr. 7 15,32 29 14,91 30 14,59
Feb. 17.....69. 17. 43,49	Dec. 23.....50. 27. 10,31	Feb. 18.....67. 21. 7,00 19 6,11	May 2 14,28 28 13,09
α Persei.	μ Persei.	k Tauri.	June 3 13,50 10 14,39 13 13,92
Jan. 27.....40. 42. 24,40	Dec. 27.....41. 59. 56,87	Dec. 23.....65. 11. 57,99	July 25 13,85
Feb. 17 25,19 19 24,54 21 24,94	μ Persei R.	k Tauri R.	Σ 694.
Apr. 20 25,88 23 24,55	Dec. 27.....41. 59. 56,40	Dec. 23.....65. 11. 57,77	Feb. 17.....65. 11. 38,11 18 38,34
Nov. 17 25,57	Σ 535.	ω Aurigæ.	Mar. 1 38,06
Dec. 3 24,04	Feb. 15.....78. 59. 44,05 16 43,82 17 43,97 18 43,88	Feb. 15.....52. 21. 18,50 17 20,00 18 19,18	β Tauri.
α Persei R.	ν^1 Tauri.	Σ 644.	Jan. 25.....61. 31. 56,25
Jan. 27.....40. 42. 24,57	Feb. 18.....67. 33. 1,37 19 0,19	Feb. 18.....52. 54. 23,40 19 25,08	Feb. 15 55,64 19 56,17
Feb. 17 24,64 19 25,51 21 24,87	Σ 559.	Mar. 1 22,95	Apr. 7 55,81 29 55,87
Apr. 20 26,60 23 25,73	Mar. 1.....72. 19. 21,08	Dec. 17 23,94 27 22,94	β Tauri R.
Nov. 17 24,81	Aldebaran.		Jan. 25.....61. 31. 57,25
Dec. 3 25,52	Feb. 15.....73. 48. 48,44		
g Arietis.			
Feb. 17.....65. 50. 24,09 19 23,67			

<i>β Tauri R. continued.</i>	Σ 758.	<i>α Lyncis R.</i>	Σ 1033.
Feb. 15..... ⁰ 61 . 31 . (59,92) 19 56,65	Dec. 23..... ⁰ 90 . 16 . 57,02	Dec. 30..... ⁰ 28 . 26 . 38,75	Mar. 15..... ⁰ 37 . 11 . 39,77 21 40,69 22 41,14
Apr. 7 58,84 29 57,71	<i>ζ Orionis.</i>	Piazzi VI. 62.	
118 Tauri.	Feb. 25.....92 . 1 . 51,91	Dec. 27.....68 . 48 . 13,58	Σ 1037.
Feb. 17.....64 . 59 . 1,94 18 1,65 19 1,39	Mar. 1 52,45 5 51,10	μ Geminorum.	Mar. 3.....62 . 30 . 46,24 5 47,30 15 47,89
32 Orionis.	<i>52 Orionis.</i>	Jan. 24.....67 . 24 . 42,27 25 40,89 27 42,15	<i>δ Geminorum.</i>
Feb. 25.....84 . 10 . 40,24	Feb. 25.....83 . 36 . 25,11	Apr. 16 41,52	Jan. 25.....67 . 43 . 57,02
Mar. 1 40,51	Mar. 1 24,86 5 24,33	15 Geminorum.	Mar. 21 56,34 22 56,97 23 57,22 26 57,34 30 56,96
Dec. 17 41,40	<i>C Tauri.</i>	Feb. 25.....69 . 7 . 11,98	Apr. 16 56,78
33 Orionis.	Feb. 19.....62 . 25 . 53,31	Mar. 3 10,14 10 10,70	<i>δ Geminorum R.</i>
Feb. 25.....86 . 49 . 58,75	<i>α Orionis.</i>	* <i>R.</i> 6 ^h . 19 ^m . 46 ^s .	Jan. 25.....67 . 43 . 57,98
Mar. 1 59,80	Mar. 22.....82 . 37 . 41,62	Feb. 21.....69 . 5 . 29,26 25 30,01	Mar. 21 57,91 22 57,58 23 56,55 26 57,69 30 58,79
Dec. 17 59,52	Apr. 7 41,12 30 41,57	Mar. 3 27,76 10 27,76	
Σ 734.	May 2 40,20	* <i>R.</i> 6 ^h . 21 ^m . 2 ^s .	Σ 1083.
Mar. 1.....91 . 50 . 6,41	<i>α Orionis R.</i>	Feb. 21.....69 . 7 . 11,88 25 13,20	Mar. 3.....69 . 11 . 56,47 5 56,53 30 57,17
Dec. 30 6,81	Mar. 22.....82 . 37 . 42,17	Mar. 3 11,36 10 12,96	Castor.
<i>λ Orionis.</i>	Apr. 7 41,78 30 42,39	12 Lyncis.	Feb. 14.....57 . 46 . 15,50
Mar. 1.....80 . 10 . 33,95	May 2 42,35	Mar. 12.....30 . 24 . 27,38 15 27,61 21 28,93	Mar. 30 16,30
<i>ι Orionis.</i>	<i>H Geminorum.</i>	Σ 953.	Apr. 6 16,47 16 16,70 19 16,09
Mar. 22.....96 . 1 . 6,81	Jan. 24.....66 . 44 . 4,38 25 3,08 27 2,69	<i>ε Geminorum.</i>	Castor R.
125 Tauri.	Σ 840.	Mar. 3.....80 . 52 . 22,90 12 23,20 15 24,11	Feb. 14.....57 . 46 . 17,05
Dec. 27.....64 . 11 . 51,27	Mar. 5.....79 . 14 . 24,49 10 25,68	Σ 1116.	Mar. 30 17,93
125 Tauri R.	Σ 848.	Feb. 21.....64 . 43 . 6,97 25 7,37	Apr. 6 19,12 16 17,35 19 18,84
Dec. 27.....64 . 11 . 52,38	Mar. 5.....76 . 0 . 46,28 10 46,67	<i>ζ Geminorum.</i>	Mar. 5.....77 . 21 . 27,21 10 26,53 30 27,33
Σ 757.	Dec. 27 46,54	Feb. 21.....69 . 12 . 12,93	
Feb. 25.....90 . 16 . 60,08	<i>α Lyncis.</i>		
Mar. 1 59,74 5 59,78	Dec. 30.....28 . 26 . 37,80		

ν Geminorum.	14 Canis Minoris.	θ Cancrī.	* \mathcal{R} . $8^h.45^m.32^s$.
Feb. 21..... $62.45.31''$ 93	Mar. 5..... $87.21.29''$ 24 10 29,58	Jan. 25..... $71.22.33''$ 46	Apr. 8..... $45.43.31''$ 20
Procyon.	Apr. 4 31,31	Feb. 21 32,99	9 30,94 11 31,20
Feb. 14..... $84.22.28$ 94	A.S.C. 985.	Σ 1244.	ι Ursæ Majoris.
Mar. 22 29,74	Mar. 5..... $87.14.8$ 36 10 8,59 30 8,88	Apr. 5..... $47.39.9$ 30 6 9,00 8 9,23	Feb. 24..... $41.20.34$ 38 25 35,14
Apr. 6 28,54 19 29,97	Σ 1177.	A.S.C. 1044.	Mar. 1 34,04 23 34,59 30 34,40
Aug. 16 28,86	Mar. 30..... $62.1.33$ 63	Apr. 5..... $82.49.59$ 32 6 58,59 8 58,87	ι Ursæ Majoris R.
Procyon R.	Apr. 4 33,36 5 33,26	Piazzi VIII. 131.	Feb. 24..... $41.20.33$ 73 25 33,47
Feb. 14..... $84.22.29$ 08	55 Camelopardi.	Apr. 8..... $40.34.27$ 84 9 27,84 11 27,57	Mar. 1 32,60 23 33,00 30 33,85
Mar. 22 28,91	Jan. 17..... $21.4.12$ 33	Σ 1263.	α^2 Cancrī.
Apr. 6 30,09 19 30,35	55 Camelopardi R.	Apr. 8..... $47.44.2$ 42 9 1,00 11 1,53	Apr. 19..... $77.32.4$ 43
Aug. 16 29,67	Jan. 17..... $21.4.11$ 74	δ Cancrī.	σ^4 Cancrī.
Piazzi VII. 170.	55 Camelopardi SP.	Jan. 25..... $71.16.9$ 31	Apr. 19..... $57.8.4$ 84 20 4,18
Mar. 10..... $84.24.36$ 39 30 36,06	July 12..... $21.4.10$ 92 23 10,54	Feb. 21 9,32	σ^2 Ursæ Majoris.
Apr. 5 38,21	Aug. 11 10,37 18 12,78	Apr. 19 9,58	Mar. 30..... $22.13.50$ 37
κ Geminorum.	55 Camelopardi SP. R.	ι Cancrī.	Apr. 4 51,70
Jan. 25..... $65.13.44$ 06 27 42,81	July 12..... $21.4.9$ 60 23 11,91	Apr. 9..... $60.39.59$ 32 11 59,51 16 60,09	Σ 1311.
Pollux.	Aug. 11 11,97 18 12,44	Σ 1288.	Apr. 16..... $66.23.27$ 76 19 28,29 20 27,77
Feb. 14..... $61.35.50$ 33 21 50,64	11 Cancrī.	Apr. 9..... $60.57.14$ 81	Σ 1312.
Mar. 22 51,31	Mar. 10..... $62.3.53$ 46 30 54,84	Σ 1289.	Σ 1318.
Apr. 19 51,18	Apr. 4 54,96 5 54,88	Apr. 8..... $45.48.55$ 74 9 55,33 11 55,61	Apr. 16..... $42.21.54$ 62 19 54,42 20 54,11
Pollux R.	Σ 1200.	ι^2 Cancrī.	Σ 1322.
Feb. 14..... $61.35.52$ 29 21 52,25	Mar. 10..... $39.45.17$ 55	Apr. 16..... $58.49.35$ 24 19 35,74 20 36,02	Apr. 4..... $72.49.49$ 15 5 49,70 16 49,41
Mar. 22 52,62	Apr. 4 18,24		
Apr. 19 53,25			
5 Argūs.			
Mar. 5..... $101.48.31$ 88 10 31,63 30 33,28			

Σ 1333.	Piazzi IX. 161.	Regulus <i>continued.</i>	Piazzi X. 58.
Apr. 4..... ⁰ 53 . 58 . 36,55 5 36,50 16 36,47	Apr. 5..... ⁰ 86 . 39 . 11,07 6 10,52 8 10,82	May 16..... ⁰ 77 . 15 . 48,32 June 13 48,59 Sept. 29 48,17	Apr. 25..... ⁰ 36 . 34 . 38,07 26 38,65 27 38,80
Σ 1338.	ε Leonis.	Regulus R.	44 Leonis.
Apr. 4.....51 . 8 . 49,03 5 48,73 15 48,94	Jan. 27.....65 . 30 . 4,46 Apr. 20 4,44	Jan. 27.....77 . 15 . 47,26 Feb. 24 46,55 Mar. 5 45,69 10 47,72 Apr. 4 45,99 5 45,94 9 45,58 19 46,52 May 16 48,31 June 13 50,09 Sept. 29 47,31	Apr. 27.....80 . 24 . 51,37 29 50,13
39 Lyncis.	ε Leonis R.		Piazzi X. 67.
Apr. 15.....39 . 47 . 16,29 16 16,61 20 16,64	Jan. 27.....65 . 30 . 5,38 Apr. 20 5,95		Apr. 25.....80 . 25 . 24,04 26 24,20 27 24,59 29 24,09
21 Ursæ Majoris.	Σ 1379.		Σ 1439.
Apr. 4.....35 . 18 . 33,31 5 32,27 15 32,07	Apr. 8.....80 . 23 . 35,66 9 35,43 15 35,53		Apr. 25.....68 . 23 . 19,82 26 20,61 27 20,69
Σ 1348.	ν Ursæ Majoris.	Σ 1417.	ρ Leonis.
Apr. 15.....82 . 58 . 23,58 16 23,30 19 24,38	Feb. 25.....30 . 13 . 20,23 Oct. 27 19,01	Apr. 25.....70 . 5 . 36,25 26 36,39 27 36,77	Jan. 27.....79 . 52 . 55,97 Mar. 5 55,05 May 17 56,83
Σ 1355.	ν Ursæ Majoris R.	λ Ursæ Majoris.	48 Leonis.
Apr. 4.....83 . 4 . 40,97 5 41,22 8 41,60	Feb. 25.....30 . 13 . 18,14 Oct. 27 19,94	Mar. 10.....46 . 17 . 56,39 Apr. 4 58,27 5 56,22 9 56,67	Feb. 25.....82 . 14 . 5,20 26 5,81
α Hydræ.	Σ 1396.	λ Ursæ Majoris R.	Σ 1457.
Apr. 20.....97 . 58 . 36,54	Apr. 19.....78 . 35 . 15,20 20 15,66	Mar. 10.....46 . 17 . 57,36 Apr. 4 57,24 5 57,18 9 56,11	Apr. 26.....83 . 26 . 46,51 27 46,35 29 45,94
α Hydræ R.	π Leonis.	γ Leonis.	Σ 1460.
Apr. 20.....97 . 58 . 39,10	Apr. 19.....81 . 12 . 1,43 20 1,26	Jan. 27.....69 . 21 . 40,81 Mar. 5 39,29	Apr. 25.....47 . 1 . 33,19 26 34,39 27 34,24
Σ 1365.	Regulus.	Σ 1426.	* R. 10 ^h . 33 ^m . 5 ^s .
Apr. 4.....87 . 50 . 27,27 5 28,23 8 27,82	Jan. 27.....77 . 15 . 45,97 Feb. 24 47,41 Mar. 5 46,46 10 46,51 Apr. 4 47,73 5 45,53 9 47,39 19 46,97	Mar. 10.....82 . 46 . 34,99 Apr. 9 34,71 25 35,28	Apr. 25.....89 . 27 . 5,87 26 5,81 27 6,59
14 Leonis.			Σ 1464.
Jan. 27.....79 . 23 . 31,07 Feb. 24 30,56 May 16 30,81			Apr. 25.....89 . 26 . 52,55 26 53,48 27 55,06

34 Sextantis.	α Ursæ Majoris R. <i>continued.</i>	δ Leonis <i>continued.</i>	90 Leonis.
Apr. 20..... ⁰ 85. ³⁵ . ³⁵ 24 21 35,16 22 35,67	June 11..... ⁰ 27. ²³ . ⁵¹ 52 15 49,57 Aug. 15 49,96 18 49,92 Sept. 19 50,44 29 51,05 Oct. 3 49,87 4 49,89 Nov. 25 50,90	May 4..... ⁰ 68. ³⁶ . ⁴⁰ 14 17 41,48 Nov. 25 38,89	Apr. 8..... ⁰ 72. ¹⁹ . ⁴⁸ 20 25 47,34 27 47,26
40 Sextantis.	α Ursæ Majoris SP.	δ Leonis R.	A.S.C. 1359.
Apr. 25..... ⁰ 93. ¹¹ . ²³ 48 26 23,31 27 23,70	Sept. 20..... ⁰ 27. ²³ . ⁴⁷ 97 Oct. 24 50,99 Nov. 12 52,37 24 52,89 25 51,97 26 52,21 Dec. 8 52,24 14 52,92	Feb. 26..... ⁰ 68. ³⁶ . ⁴¹ 07 May 4 40,94 17 41,06 Nov. 25 40,76	Apr. 30..... ⁰ 61. ²⁰ . ⁴³ 50 May 4 43,59 13 45,17
d Leonis.	α Ursæ Majoris SP. R.	Σ 1521.	v Leonis.
Apr. 20..... ⁰ 85. ³² . ⁷ 30 21 7,19 22 7,79	Sept. 20..... ⁰ 27. ²³ . ⁴⁷ 97 Oct. 24 50,99 Nov. 12 52,37 24 52,89 25 51,97 26 52,21 Dec. 8 52,24 14 52,92	Apr. 25..... ⁰ 61. ³⁴ . ⁵ 77 27 5,32 29 6,25	Feb. 25..... ⁰ 89. ⁵⁷ . ⁶ 08 26 5,77 Apr. 22 7,37 Nov. 25 7,52
α Ursæ Majoris.	α Ursæ Majoris, SP. R.	Σ 1527.	Σ 1561.
Feb. 26..... ⁰ 27. ²³ . ⁵¹ 64 Mar. 10 51,26 18 50,81 50 49,69 Apr. 21 51,03 22 51,87 25 49,83 27 51,36 29 50,73 May 16 50,31 17 52,14 28 51,13 June 11 49,98 15 51,51 Aug. 15 50,98 18 53,12 Sept. 19 51,71 29 51,65 Oct. 3 52,27 4 52,05 Nov. 25 50,80	Sept. 20..... ⁰ 27. ²³ . ⁵⁰ 31 Oct. 24 50,53 Nov. 12 51,22 24 51,58 25 51,34 26 51,15 Dec. 8 50,81 14 51,49	Apr. 25..... ⁰ 74. ⁵¹ . ⁴¹ 00 27 39,36 29 39,68	Apr. 8..... ⁰ 44. ¹ . ⁴ 16 25 3,05 27 3,66
α Ursæ Majoris R.	Piazzi X. 229.	Σ 1530.	Σ 1564.
Feb. 26..... ⁰ 27. ²³ . ⁵⁰ 65 Mar. 10 51,97 18 50,26 30 50,34 Apr. 21 51,66 22 50,73 25 50,88 27 51,14 29 50,86 May 16 49,18 17 49,40 28 49,98	Apr. 25..... ⁰ 85. ³⁰ . ³⁹ 69 26 40,00 27 41,07	Apr. 25..... ⁰ 96. ² . ⁰ 16 27 1,12 May 4 2,48	Apr. 30..... ⁰ 62. ¹⁰ . ⁵ 67 May 4 5,34
α Ursæ Majoris R.	χ Leonis.	ι Leonis.	Σ 1565.
Feb. 26..... ⁰ 27. ²³ . ⁵⁰ 65 Mar. 10 51,97 18 50,26 30 50,34 Apr. 21 51,66 22 50,73 25 50,88 27 51,14 29 50,86 May 16 49,18 17 49,40 28 49,98	Feb. 24..... ⁰ 81. ⁴⁸ . ³⁹ 72 25 39,38	Nov. 25..... ⁰ 78. ³⁶ . ³ 36	Apr. 30..... ⁰ 70. ⁷ . ⁴⁰ 83 May 4 40,10 13 42,41
α Ursæ Majoris R.	Piazzi XI. 9.	τ Leonis.	Σ 1566.
Feb. 26..... ⁰ 27. ²³ . ⁵⁰ 65 Mar. 10 51,97 18 50,26 30 50,34 Apr. 21 51,66 22 50,73 25 50,88 27 51,14 29 50,86 May 16 49,18 17 49,40 28 49,98	Apr. 25..... ⁰ 69. ⁰ . ²³ 70 27 23,27 29 24,18	Nov. 25..... ⁰ 86. ¹⁶ . ²⁷ 43	May 4..... ⁰ 68. ⁵ . ¹³ 60
α Ursæ Majoris R.	δ Leonis.	57 Ursæ Majoris.	β Leonis.
Feb. 26..... ⁰ 27. ²³ . ⁵⁰ 65 Mar. 10 51,97 18 50,26 30 50,34 Apr. 21 51,66 22 50,73 25 50,88 27 51,14 29 50,86 May 16 49,18 17 49,40 28 49,98	Feb. 26..... ⁰ 68. ³⁶ . ⁴¹ 29	Apr. 8..... ⁰ 49. ⁴⁷ . ³⁷ 76 25 36,72 27 36,91	Apr. 8..... ⁰ 74. ³² . ⁴⁰ 50 15 40,96 25 39,99 27 40,36 May 17 41,96 June 8 40,39 11 39,68 15 40,80 Oct. 28 40,17
α Ursæ Majoris R.	δ Leonis.	88 Leonis.	β Leonis R.
Feb. 26..... ⁰ 27. ²³ . ⁵⁰ 65 Mar. 10 51,97 18 50,26 30 50,34 Apr. 21 51,66 22 50,73 25 50,88 27 51,14 29 50,86 May 16 49,18 17 49,40 28 49,98	Feb. 26..... ⁰ 68. ³⁶ . ⁴¹ 29	Apr. 30..... ⁰ 74. ⁴⁵ . ²¹ 01 May 4 20,70 13 21,39	Apr. 8..... ⁰ 74. ³² . ⁴⁰ 35 15 41,50

β Leonis R. continued.	γ Ursæ Majoris SP.	δ Ursæ Majoris.	q Virginis.
Apr. 25..... ⁰ 74. ¹ 32. ² 41,57 27 40,74	Aug. 23..... ⁰ 35. ¹ 25. ² 34,29	Mar. 26..... ⁰ 32. ¹ 5. ² 20,51	Feb. 26..... ⁰ 98. ¹ 34. ² 45,16
May 17 41,30	Sept. 9 35,46 20 32,31	Apr. 6 20,14 15 20,97	Apr. 22 45,67
June 8 42,32 11 43,44 15 41,39	Nov. 12 36,16 26 35,02	δ Ursæ Majoris R.	May 19 45,36
Oct. 28 42,08	Dec. 8 36,06	Mar. 26.....32. 5. 19,80	κ Draconis.
β Virginis.	γ Ursæ Majoris SP. R.	Apr. 6 21,10 15 19,02	Mar. 26.....19. 20. 24,36
Feb. 25.....87. 20. 40,92 26 40,72	Aug. 23.....35. 25. 36,37	δ Ursæ Majoris SP.	κ Draconis R.
Apr. 22 42,06	Sept. 9 37,31 20 35,12	Sept. 2.....32. 5. 20,50	Mar. 26.....19. 20. 23,75
June 15 41,96 16 42,47	Nov. 12 35,03 26 37,46	Oct. 28 20,59	κ Draconis SP.
γ Ursæ Majoris.	Dec. 8 36,52	Dec. 17 19,13	Oct. 10.....19. 20. 22,71
Feb. 26.....35. 25. 36,60	Σ 1582.	δ Ursæ Majoris SP. R.	Dec. 13 25,50 14 24,43 17 23,48
Mar. 18 35,87 26 36,14	Apr. 30.....67. 8. 18,33	Sept. 2.....32. 5. 20,43	κ Draconis SP. R.
Apr. 5 35,95 6 35,79 8 36,69 15 36,28 20 36,51 22 36,19 25 35,53 27 36,14	May 4 16,77 13 19,88	Oct. 28 19,07	Oct. 10.....19. 20. 23,33
May 4 35,49 17 37,40	Σ 1585.	Dec. 17 19,97	Dec. 13 25,00 14 24,43 17 23,14
June 8 35,67 11 34,75	Apr. 30.....48. 5. 39,79	Piazzì XII. 33.	24 Comæ Berenices.
Oct. 3 35,75 4 36,96	May 4 38,09 13 40,50	Apr. 30.....93. 4. 15,46	May 19.....70. 45. 7,28 23 6,19 24 6,80
γ Ursæ Majoris R.	Σ 1606.	May 4 14,74 13 17,43	η Virginis.
Feb. 26.....35. 25. 34,84	Apr. 30.....49. 13. 43,46	Mar. 26.....89. 47. 17,05	γ Virginis.
Mar. 18 34,38 26 35,66	May 4 42,55 13 42,36	Σ 1634.	May 19.....90. 34. 54,47 24 53,90 25 54,32
Apr. 5 35,24 6 36,36 8 35,78 15 35,16 20 35,12 22 35,68 25 36,87 27 35,44	Σ 1608. <i>sp.</i>	May 17.....66. 12. 24,06 19 25,21	35 Comæ Berenices.
May 4 34,03 17 34,28	Apr. 30.....35. 41. 46,13	May 14.....64. 7. 30,32 17 31,47 19 31,05	May 19.....67. 53. 39,18 24 39,49 25 39,99
June 8 35,20 11 33,46	May 4 44,86	Σ 1639.	ψ Virginis.
Oct. 3 34,07 4 34,05	Σ 1608. <i>nf.</i>	Apr. 30.....63. 32. 25,52	Feb. 26.....98. 40. 44,55
	May 14.....35. 41. 38,68	May 4 24,81 14 26,46	Apr. 22 44,67 23 45,22
	Σ 1619.	A.S.C. 1440.	Σ 1719.
	May 4.....96. 22. 29,35 13 34,79 17 32,31	May 19.....79. 24. 28,29 25 28,77	May 23.....88. 33. 50,60 24 50,30
			June 1 49,83

θ Virginis.	84 Virginis.	η Bootis.	Arcturus <i>continued</i> .
Mar. 26.....94. 41. 37,34	May 19.....85. 39. 35,05 26 34,35 30 34,71	Apr. 23.....70. 48. 26,69	July 26.....69. 59. 30,99
Σ 1734.	Σ 1776.	May 14 27,20 24 26,75 26 26,29	Aug. 15 31,67 17 31,65
May 31.....86. 13. 34,08	May 31.....42. 58. 51,08	June 28 26,75	Oct. 5 31,06
June 1 33,04 3 33,16	June 1 50,24 3 50,07	η Bootis R.	Arcturus R.
Σ 1742.	α Virginis.	Apr. 23.....70. 48. 26,74	May 19.....69. 59. 30,15
May 31.....87. 46. 23,70	Apr. 23... 107. 20. 37,86	May 14 26,51 24 27,23 26 27,51	June 28 32,36
June 1 23,55 3 24,50	η Ursæ Majoris.	June 28 27,73	July 26 32,74
Spica.	Apr. 19.....39. 53. 45,53	Σ 1793.	Aug. 15 33,32 17 32,37
Apr. 23... 100. 20. 3,73 28 3,15	May 14 45,58 19 47,38 24 45,53 26 44,38 31 45,04	May 30.....63. 24. 46,05 31 47,79	Oct. 5 32,35
May 26 3,21	June 1 44,55 3 45,23 28 44,37	June 3 47,10	Piazzi XIV. 62.
Spica R.	Aug. 17 46,13	Σ 1807.	June 6.....97. 2. 15,54 7 15,84 8 14,65
Apr. 23... 100. 20. 4,64 28 4,70	Oct. 5 46,37 26 44,45	May 31.....92. 34. 58,71	Piazzi XIV. 70.
May 26 3,91	Nov. 20 45,47	June 1 58,88 3 58,18	June 6... 100. 56. 56,28 7 55,34 8 53,44
Σ 1751.	η Ursæ Majoris R.	Σ 1813.	Σ 1847.
May 19.....79. 51. 53,97 26 53,03 30 52,88	Apr. 19.....39. 53. 45,91	May 19.....83. 51. 27,42 24 26,87 31 26,91	June 6.....99. 29. 33,35 8 34,87 9 32,61
Piazzi XIII. 127.	May 14 45,00 19 46,22 24 45,62 26 46,68 31 47,14	Σ 1816.	Σ 1850.
May 31.....89. 30. 8,99	June 1 46,02 3 46,74 28 48,20	June 8.....60. 9. 9,00 9 9,22 10 9,27	June 8.....61. 0. 0,69 9 1,92 10 1,48
June 1 7,58 3 8,29	Aug. 17 47,93	Σ 1817.	ζ Bootis.
Σ 1760.	Oct. 5 46,19 26 46,61	June 3.....62. 33. 47,23 6 46,12 7 47,48	June 14.....75. 35. 23,64 15 26,91 16 24,00
May 19.....62. 54. 41,73 26 41,49 30 41,60	Nov. 20 45,99	Σ 1823.	Σ 1867.
81 Virginis.	A.S.C. 1585.	June 3.....78. 57. 14,30 6 13,27 8 13,14	June 8.....58. 1. 36,35 9 35,64 10 35,97
May 19.....97. 3. 49,05 30 47,97 31 49,09	May 19.....97. 16. 41,38 30 40,43	Arcturus.	Σ 1866.
Σ 1768.	June 3 42,66	May 19.....69. 59. 32,54	June 8.....79. 47. 37,80 9 37,59 10 39,10
May 31.....52. 53. 56,27		June 28 30,52	
June 1 55,95 3 56,89			

Σ 1870.	β Ursæ Minoris R.	Σ 1935.	β Serpentis.
May 19..... $81^{\circ} 14' 50''$ 48	Apr. 30..... $15^{\circ} 11' 54''$ 12	June 14..... $58^{\circ} 43' 38''$ 73 16 42,39	June 28..... $74^{\circ} 4' 44''$ 34
June 14 50,58 15 50,47	May 12 52,93 13 53,53 19 53,50 23 55,35	Σ 1942.	Aug. 13 43,71
ϵ Bootis.	June 9 54,74 14 53,76 16 55,39	June 16..... $67^{\circ} 58' 52''$ 78	Σ 1977.
May 19..... $62^{\circ} 15' 23''$ 25	β Ursæ Minoris SP.	Σ 1943.	June 21..... $64^{\circ} 3' 15''$ 96 27 17,19 28 16,31
June 6 21,16	Feb. 5..... $15^{\circ} 11' 56''$ 93	May 12..... $84^{\circ} 4' 34''$ 15 13 33,26	π Scorpii.
July 30 21,87	Oct. 21 53,29	June 10 31,09	Apr. 25... $115^{\circ} 39' 9''$ 46 26 11,18
ϵ Bootis R.	β Ursæ Minoris SP. R.	Σ 1952.	Piazzi XV. 220.
May 19..... $62^{\circ} 15' 20''$ 84	Feb. 5..... $15^{\circ} 11' 55''$ 91	June 16..... $79^{\circ} 47' 50''$ 48 28 51,48	June 29..... $86^{\circ} 7' 58''$ 68
June 6 22,81	Oct. 21 54,76	Σ 1953.	ζ Ursæ Minoris.
July 30 22,74	20 Libræ.	May 12..... $83^{\circ} 57' 10''$ 56 13 7,32 19 12,32	May 24..... $11^{\circ} 43' 23''$ 76 30 23,28
Σ 1879.	Apr. 25... $114^{\circ} 39' 20''$ 47	June 10 9,84	June 1 21,26 21 22,63
June 15..... $79^{\circ} 40' 24''$ 70 16 25,00	May 23 19,52	δ Serpentis.	July 26 22,24
Σ 1883.	ι^1 Libræ.	May 19..... $78^{\circ} 55' 43''$ 57	ζ Ursæ Minoris R.
June 9..... $83^{\circ} 22' 48''$ 18 10 46,75 14 48,31	May 23... $109^{\circ} 11' 17''$ 86	June 10 42,90 14 43,30	May 24..... $11^{\circ} 43' 20''$ 97 30 20,07
Σ 1884.	Σ 1919.	α Coronæ Borealis.	June 1 19,86 21 21,19
June 9..... $64^{\circ} 58' 24''$ 92 10 23,95 14 23,96	June 9..... $70^{\circ} 7' 48''$ 49 10 49,01 15 48,54	May 30..... $62^{\circ} 44' 58''$ 32 31 58,64	July 26 17,82
α^2 Libræ.	Σ 1921.	α Coronæ Borealis R.	ζ Ursæ Minoris SP.
Apr. 25... $105^{\circ} 22' 49''$ 76 26 50,98	June 9..... $50^{\circ} 43' 47''$ 86 10 48,18 15 48,79	May 30..... $62^{\circ} 44' 58''$ 67 31 57,88	Feb. 17..... $11^{\circ} 43' 21''$ 76 18 22,30 19 21,54 21 23,07
May 12 51,35 13 49,93	β Libræ.	Σ 1963.	Dec. 3 22,09
α^2 Libræ R.	June 14..... $98^{\circ} 47' 42''$ 13 16 41,43	June 14..... $59^{\circ} 22' 34''$ 51 16 35,22 27 34,82	ζ Ursæ Minoris SP. R.
Apr. 25... $105^{\circ} 22' 53''$ 35 26 50,49	β Libræ R.	κ Libræ.	Feb. 17..... $11^{\circ} 43' 21''$ 67 18 20,57 19 20,42 21 22,19
May 12 51,98 13 49,91	June 14..... $98^{\circ} 47' 43''$ 44 16 43,71	Apr. 25... $109^{\circ} 9' 38''$ 92 26 38,91	Dec. 3 20,84
β Ursæ Minoris.	5 Serpentis.	ζ Coronæ Borealis.	β^1 Scorpii.
Apr. 30..... $15^{\circ} 11' 58''$ 01	June 16..... $87^{\circ} 37' 55''$ 70 28 56,82	June 14..... $52^{\circ} 50' 51''$ 80 16 51,96 27 51,36	May 24..... $109^{\circ} 22' 0''$ 19
May 12 56,74 13 56,51 19 57,71 23 55,35	July 5 56,19		
June 9 55,76 14 55,55 16 56,13			

Σ 2007.	ζ Herculis.	α Herculis.	95 Herculis.
June 29.....76 . 14 . 44,25	June 21.....58 . 6 . 25,03 22 26,25	July 6.....75 . 25 . (25,24)	June 27.....68 . 23 . 55,50
Σ 2011.	July 6 25,04	Aug. 2 28,79 13 29,30 15 28,59 17 29,50	July 6 54,70 Aug. 3 53,07
June 29.....60 . 34 . 43,51	Σ 2087.		γ^2 Sagittarii.
Σ 2017.	June 21.....66 . 1 . 43,74 July 6 44,87	α Herculis R.	Aug. 16... 120 . 25 . 2,49
June 29.....75 . 2 . 18,08		July 6.....75 . 25 . 29,10	70 Ophiuchi.
δ Ophiuchi.	56 Herculis.	Aug. 2 29,32 13 29,58 15 29,47 17 28,62	Aug. 11.....87 . 27 . 26,25 12 25,99 13 25,37
May 12.....93 . 16 . 57,06 13 56,39 28 56,59	Aug. 2.....64 . 0 . 37,07 12 35,85 15 37,17	Σ 2147.	Piazzi XVII. 362.
June 6 54,54	η Ophiuchi.	June 20.....60 . 54 . 45,52 25 46,92	June 27.....78 . 0 . 15,97
δ Ophiuchi R.	June 21... 105 . 31 . 21,60 Aug. 15 22,95 17 22,99	July 6 46,26	July 6 14,71 Aug. 3 13,41
May 12.....93 . 16 . 55,69 13 56,14 28 56,20	ϵ Ursæ Minoris.	* R. 17 ^h . 11 ^m . 45 ^s .	Σ 2278.
June 6 58,31	June 20..... 7 . 42 . 47,87	June 25.....60 . 55 . 12,53 July 6 11,40	Aug. 12.....33 . 34 . 46,66 13 46,08 15 46,32
σ Scorpii.	July 6 47,95 26 47,14	θ Ophiuchi.	μ^1 Sagittarii.
Apr. 26... 115 . 12 . 25,26	Aug. 1 48,58 2 47,79 13 47,20	May 24... 114 . 50 . 2,38 Aug. 15 6,53 17 4,92	Aug. 15... 111 . 5 . 34,79 16 35,53 17 34,40
η Draconis.	ϵ Ursæ Minoris R.	Piazzi XVII. 94.	η Serpentis.
May 16.....28 . 7 . 38,34	June 20..... 7 . 42 . 47,25	June 20.....74 . 14 . 40,98 25 42,23	July 14.....92 . 56 . 1,99 29 2,90
June 3 37,64 6 37,14 21 36,41	July 6 46,54 26 46,55	July 6 39,95	Aug. 8 1,41
July 26 36,07	Aug. 1 46,78 2 47,89 13 48,60	α Ophiuchi.	η Serpentis R.
Aug. 2 36,11	ϵ Ursæ Minoris SP.	Aug. 1.....77 . 19 . 11,01	July 14.....92 . 56 . 5,53 29 4,09
Nov. 14 37,46	Feb. 17..... 7 . 42 . 48,95	α Ophiuchi R.	Aug. 8 3,80
η Draconis R.	ϵ Ursæ Minoris SP. R.	Aug. 1.....77 . 19 . 10,86	59 Serpentis.
May 16.....28 . 7 . 34,14	Feb. 17..... 7 . 42 . 48,36	Piazzi XVII. 300.	Aug. 9.....89 . 53 . 30,57 12 31,06 13 31,24
June 3 34,94 6 38,75 21 35,38	A Ophiuchi.	Aug. 9.....71 . 38 . 41,42 12 41,24 13 40,82	δ Ursæ Minoris.
July 26 35,64	May 24... 116 . 21 . 47,48		June 7..... 3 . 24 . 26,99 9 27,75
Aug. 2 35,65			
Nov. 14 35,50			

δ Ursæ Minoris <i>continued.</i>	α Lyræ <i>continued.</i>	Σ 2369.	β Lyræ R.
June 13..... 3. 24. 26,76 27 28,00 29 27,58	June 7.....51. 21. 34,77 9 34,29 15 33,99 20 33,79 27 34,03 29 34,54	Aug. 31.....87. 31. 42,20 Sept. 2 42,23 6 43,14	Mar. 4.....56. 48. 60,73 June 7 59,72 9 60,67 15 59,14 20 60,86 21 61,40 27 59,22 29 59,48
July 6 27,64	27 34,03 29 34,54	4 Aquilæ.	July 6 59,79
Aug. 3 25,77 5 25,14 8 25,38 9 25,04 16 27,41	July 2 34,38 6 34,73 14 34,81 29 34,60	June 7.....88. 5. 42,74 9 42,58	Aug. 3 61,00 6 61,78 16 59,63
Sept. 2 26,03 12 26,61	Aug. 2 33,80 3 34,40 5 34,13 8 33,32 9 34,71 11 33,92 12 33,65 17 33,66 23 33,77	Aug. 3 43,09	Σ 2409.
Nov. 1 24,33	Sept. 2 33,71 12 33,27	4 Aquilæ R.	Aug. 23.....76. 39. 51,06 24 53,56 26 52,98
δ Ursæ Minoris R.	Oct. 27 33,31	June 7.....88. 5. 41,92 9 (38,79)	Σ 2408.
June 7..... 3. 24. 25,69 9 23,25 13 23,97 27 23,86 29 24,32	Nov. 1 33,33	Aug. 3 43,16	Sept. 6.....79. 24. 14,80 9 13,31 12 12,15
July 6 (19,19)	Dec. 19 33,48 24 34,06	Σ 2375.	Σ 2400.
Aug. 3 24,98 5 24,88 8 23,63 9 24,68 16 23,20	α Lyræ R.	Aug. 23.....84. 39. 30,36 26 32,18	Sept. 9.....73. 55. 5,66 12 6,79 15 6,51
Sept. 2 23,27 12 24,51	Mar. 4.....51. 21. 35,31	Sept. 3 31,17	Σ 2402.
Nov. 1 25,20	June 7 34,63 9 33,78 15 33,73 20 34,46 27 33,47 29 33,01	Σ 2400.	Aug. 17.....79. 29. 56,04 23 54,13 24 55,98
δ Ursæ Minoris SP.	July 2 33,80 6 34,07 14 35,22 29 35,43	Σ 2404.	σ Sagittarii.
Jan. 25..... 3. 24. 24,66 27 26,16	Aug. 2 34,80 3 34,85 5 35,17 8 34,93 9 35,86 11 33,86 12 33,69 17 34,85 23 33,72	Aug. 11.....79. 12. 11,02 13 9,86 15 11,64	Aug. 16... 116. 29. 8,68 17 6,77
Mar. 12 26,82 15 25,68 22 25,60	Sept. 2 35,32 12 34,10	Σ 2402.	Sept. 12 8,98 15 9,30
δ Ursæ Minoris SP. R.	Oct. 27 35,74	β Lyræ.	Σ 2415.
Jan. 25..... 3. 24. 22,38 27 24,35	Nov. 1 36,04	Mar. 4.....56. 48. 59,51	Aug. 13.....69. 34. 43,45 15 43,97 16 44,59
Mar. 12 26,77 15 25,62 22 26,22	Dec. 19 34,59 24 33,33	June 7 59,57 9 59,77 15 59,87 20 59,40 21 59,71 27 60,56 29 60,33	\circ Draconis.
Σ 2339.		July 6 60,13	July 30.....30. 48. 12,80
Aug. 12.....72. 22. 58,86 13 58,39 15 59,23		Aug. 3 58,80 6 59,95 16 60,57	Aug. 9 10,80
α Lyræ.			Σ 2422.
Mar. 4.....51. 21. 34,15			Aug. 17.....64. 6. 31,42 23 31,80 26 32,42

Σ 2437.	ψ Sagittarii.	δ Aquilæ R.	γ Aquilæ continued.
Sept. 9.....71. 3. 9,76 12 10,40 15 10,30	Sept. 20... 115. 31. 18,19 21 20,36 26 19,85 Oct. 1 19,42	Aug. 4.....87. 11. 42,05 Sept. 16 43,17 26 41,78	Aug. 11.....79. 45. 59,59 26 61,57 Sept. 3 61,03 6 61,19 12 60,53
* $R. 18^h. 57^m. 4^s.$	Σ 2486.	* $R. 19^h. 20^m. 7^s.$	γ Aquilæ R.
Sept. 12.....66. 52. 32,33 14 33,62 15 33,23	Aug. 17.....40. 26. 18,81 Sept. 12 17,92 15 17,35	Sept. 26.....62. 56. 19,82 29 22,73 Oct. 5 16,68	Apr. 11.....79. 46. 1,04 July 23 1,54 Aug. 11 1,82 26 0,58 Sept. 3 1,54 6 1,36 12 0,85
Σ 2448.	η Lyrae.	Σ 2525.	Σ 2576.
Aug. 9.....54. 29. 15,35 11 15,42 16 16,24	Aug. 11.....51. 7. 20,01 13 20,01 Oct. 8 19,15	Sept. 26.....62. 59. 36,09 29 36,75 Oct. 5 37,87	Sept. 26.....56. 45. 30,82 29 31,62
Σ 2445.	η Lyrae R.	h^2 Sagittarii.	57 Sagittarii.
Sept. 12.....66. 54. 9,87 14 9,67 15 9,16	Aug. 11.....51. 7. 19,32 13 20,52 Oct. 8 20,78	July 21... 115. 13. 34,09 Sept. 14 31,55	Aug. 17... 109. 26. 23,07 Sept. 14 24,25
ζ Aquilæ.	Σ 2499.	θ Cygni.	α Aquilæ.
June 27.....76. 21. 60,02 July 14 58,55 25 57,89	Sept. 9.....68. 20. 6,62 12 8,59 15 5,99	July 12.....40. 8. 31,43 18 30,22 25 30,38 Aug. 4 30,07 Sept. 12 31,22 26 30,15	Feb. 13.....81. 32. 38,31 Apr. 4 38,08 10 36,48 11 39,12 Sept. 20 37,93
ζ Aquilæ R.	δ Draconis SP.	θ Cygni R.	α Aquilæ R.
June 27.....76. 21. 59,90 July 14 61,76 25 60,38	Mar. 5.....22. 36. 59,57	July 12.....40. 8. 29,07 18 30,78 25 30,85 Aug. 4 32,10 Sept. 12 31,03 26 31,91	Feb. 13.....81. 32. 38,98 Apr. 4 39,36 10 39,02 11 38,05 Sept. 20 39,15
Σ 2449.	δ Draconis SP. R.	Σ 2556.	β Aquilæ.
Aug. 11.....83. 4. 58,49 Sept. 2 59,16 3 58,97	Mar. 5.....22. 36. 58,70	Sept. 20.....68. 6. 6,00	Aug. 11.....83. 58. 58,22 18 59,44 26 59,13 Sept. 6 57,84
π Sagittarii.	Σ 2500.	e^2 Sagittarii.	β Aquilæ R.
Aug. 16... 111. 16. 3,68 17 4,38	Sept. 12.....70. 34. 3,02 19 1,89 20 3,09	Aug. 17... 106. 29. 15,61 18 18,09	Aug. 11.....83. 58. 58,75 18 58,94
17 Lyrae.	Σ 2504.	γ Aquilæ.	
Sept. 16.....57. 44. 35,10 19 34,13 20 34,38	Sept. 12.....71. 8. 55,46 15 55,83 19 54,96	Apr. 11.....79. 45. 61,86 July 23 60,60	
Σ 2466.	δ Aquilæ.		
Sept. 12.....60. 26. 40,15 14 40,23 15 40,14	Aug. 4.....87. 11. 40,80 Sept. 16 40,63 26 41,30		

<i>β Aquilæ R. continued.</i>	Σ 2651.	<i>β² Capricorni.</i>	Σ 2708.
Aug. 26..... ⁰ 83 . 58 . 59,60	Sept. 26..... ⁰ 74 . 18 . 53,25	Sept. 14... ⁰ 105 . 16 . 28,54	Oct. 27..... ⁰ 51 . 54 . 30,62
Sept. 6 59,09	Nov. 4 54,34	15 29,40	28 30,59
Σ 2600.	<i>α¹ Capricorni.</i>	Σ 2671.	<i>α Cygni.</i>
Sept. 20.....67 . 54 . 34,54	Sept. 15... 102 . 59 . 28,83	Nov. 4.....35 . 5 . 42,57	Jan. 24.....45 . 16 . 53,67
* <i>℞. 19^h. 52^m. 14^s.</i>	16 28,19		Feb. 11 51,00
Sept. 26.....57 . 8 . 35,26	21 28,79	<i>λ Ursæ Minoris.</i>	13 52,18
Σ 2606.	<i>α¹ Capricorni R.</i>	Aug. 4..... 1 . 9 . 51,30	25 52,79
Sept. 26.....57 . 8 . 56,38	Sept. 15... 102 . 59 . 30,74	20 55,26	Mar. 22 52,68
Σ 2610.	16 29,84	23 54,26	July 15 52,80
Sept. 20.....54 . 53 . 27,24	21 29,29	Sept. 3 51,92	21 53,51
29 25,38	<i>α² Capricorni.</i>	15 51,11	Aug. 6 52,06
Σ 2613.	Sept. 15... 103 . 1 . 44,61	16 53,09	19 53,22
Sept. 20.....79 . 41 . 4,80	21 46,79	Oct. 28 50,46	20 53,58
Oct. 27 4,17	Aug. 6 43,46	<i>λ Ursæ Minoris R.</i>	Sept. 14 51,49
* <i>℞. 19^h. 55^m. 47^s.</i>	Sept. 3 45,74	Aug. 4..... 1 . 9 . 51,44	15 51,91
Sept. 26.....74 . 58 . 32,69	15 44,91	20 51,19	16 52,15
Oct. 5 34,45	16 44,59	23 54,02	20 53,18
Σ 2618.	21 44,80	Sept. 3 50,66	Oct. 13 52,52
Sept. 26.....74 . 58 . 3,15	<i>α² Capricorni R.</i>	15 52,83	21 52,19
Oct. 5 5,23	July 15... 103 . 1 . 45,84	16 53,90	29 51,66
Σ 2619. <i>sp.</i>	21 45,66	Oct. 28 50,18	Nov. 24 51,80
Sept. 20.....42 . 10 . 28,13	Aug. 6 43,56	<i>λ Ursæ Minoris SP.</i>	Dec. 13 51,06
Σ 2619. <i>nf.</i>	Sept. 3 47,51	Feb. 14..... 1 . 9 . 51,47	
Sept. 29.....42 . 10 . 26,42	15 44,82	21 51,46	<i>α Cygni R.</i>
Σ 2624.	16 46,46	<i>λ Ursæ Minoris SP. R.</i>	Jan. 24.....45 . 16 . 52,37
Oct. 27.....54 . 24 . 56,11	21 46,25	Feb. 14..... 1 . 9 . 51,65	Feb. 11 53,69
Σ 2643.	Σ 2658.	21 53,47	13 53,92
Sept. 20.....93 . 27 . 50,54	Sept. 20.....37 . 21 . 36,20	<i>ν Capricorni.</i>	25 52,76
Oct. 27 50,77	Oct. 27 34,85	Aug. 19... 108 . 41 . 23,39	Mar. 22 53,68
	Σ 2659.	Sept. 14 22,40	July 15 52,42
	Sept. 26.....46 . 49 . 53,52	15 24,24	21 52,14
	* <i>℞. 20^h. 11^m. 48^s.</i>	<i>α Delphini.</i>	Aug. 6 53,80
	Oct. 27.....76 . 6 . 21,20	July 23.....74 . 38 . 26,50	19 52,26
	28 21,91	Oct. 13 27,68	20 52,14
	Σ 2665.	29 27,49	Sept. 14 53,81
	Oct. 27.....76 . 7 . 14,10	<i>α Delphini R.</i>	15 53,01
	28 14,67	July 23.....74 . 38 . 28,56	16 53,54
		Oct. 13 27,43	20 52,62
		29 30,10	Oct. 13 52,97
			21 53,69
			29 54,11
			Nov. 24 53,67
			Dec. 13 54,33
			Σ 2720.
			Nov. 4.....73 . 37 . 19,53

η Cephei.	61 ¹ Cygni <i>continued.</i>	α Cephei <i>continued.</i>	β Aquarii R.
Sept. 14.....28 . 46 . 24,90 15 24,10 16 24,01	Aug. 8.....52 . 1 . 26,15 Sept. 9 26,44 Oct. 29 25,25	Feb. 1.....28 . 4 . 55,85 13 56,50 18 56,48	July 15.....96 . 15 . 46,26 Oct. 21 45,82
Oct. 13 24,76 Nov. 24 23,10 Dec. 13 23,43	Oct. 29 25,25	Sept. 6 56,97 9 56,34 20 57,15 26 57,05	β Cephei.
η Cephei R.	61 ¹ Cygni R.	Oct. 13 56,98 19 57,74 21 55,57 27 55,46 28 55,26 29 56,48	Jan. 28.....20 . 7 . 55,33 Aug. 19 57,04 20 56,09
Sept. 14.....28 . 46 . 24,49 15 24,76 16 24,67	July 21.....52 . 1 . 23,53 23 26,02	Nov. 1 55,44 24 55,62 30 55,85	Sept. 6 56,83 Oct. 19 55,35
Oct. 13 23,45 Nov. 24 24,05 Dec. 13 25,23	Aug. 8 26,28 Sept. 9 26,14 Oct. 29 27,13	Dec. 13 56,18	β Cephei R.
4 Aquarii.	* R. 21 ^h . 2 ^m . 25 ^s .	α Cephei R.	Jan. 28.....20 . 7 . 54,18 Aug. 19 54,26 20 53,06
Oct. 21.....96 . 12 . 44,39 27 45,17 28 45,16	Sept. 20.....24 . 59 . 21,77 Oct. 13 18,96	Jan. 24.....28 . 4 . 54,18 28 55,53	Sept. 6 54,80 Oct. 19 54,20
μ Aquarii.	ζ Cygni.	Feb. 1 55,71 13 56,56 18 55,44	β Cephei SP.
July 23.....99 . 34 . 16,55 Aug. 19 17,89	July 15.....60 . 25 . 4,15 Sept. 9 4,44 21 3,26	Sept. 6 55,40 9 54,72 20 54,85 26 54,86	Apr. 20.....20 . 7 . 55,98
Σ 2738.	ζ Cygni R.	Oct. 13 54,86 19 54,26 21 56,38 27 56,15 28 57,22 29 55,38	β Cephei SP. R.
Oct. 13.....74 . 10 . 13,45	July 15.....60 . 25 . 5,45 Sept. 9 4,86 21 4,53	Nov. 1 55,40 24 56,37 30 54,99	Apr. 20.....20 . 7 . 54,88
59 Cygni.	Σ 2776.	Dec. 13 55,73	ξ Aquarii.
Oct. 13.....43 . 5 . 35,10 21 35,79 27 33,59	Sept. 20... 101 . 0 . 1,71 Oct. 21 0,57	α Cephei SP.	Oct. 13.....98 . 33 . 31,83
θ Capricorni.	s Capricorni.	Mar. 1.....28 . 4 . 56,70 12 56,79 30 56,79	Σ 2815.
Oct. 13... 107 . 51 . 20,59	July 23... 105 . 49 . 23,67 Sept. 15 24,29 16 25,31	α Cephei SP. R.	Sept. 26.....33 . 8 . 58,26
Σ 2750.	Oct. 13 24,28	Mar. 1.....28 . 4 . 55,39 12 56,85 30 (52,38)	ϵ Pegasi.
Nov. 24.....77 . 54 . 9,91	i Capricorni.	β Aquarii.	Sept. 10.....80 . 50 . 46,67
Σ 2757.	Aug. 19... 107 . 30 . 12,89	July 15.....96 . 15 . 44,40 Oct. 21 44,55	Oct. 19 45,94 Nov. 4 47,74
Oct. 28.....38 . 13 . 40,97	α Cephei.		ϵ Pegasi R.
61 ¹ Cygni.	Jan. 24.....28 . 4 . 55,92 28 56,47		Sept. 10.....80 . 50 . 46,54 Oct. 19 46,10 Nov. 4 45,64

λ Capricorni.	ζ Cephei R. <i>continued.</i>	Σ 2902.	β Piscium.
July 23... 102. 5. 27,16	Nov. 4.....32. 34. 31,68	Sept. 21.....45. 26. 52,45	Aug. 22.....87. 1. 44,30
Sept. 20 27,86 26 27,69	Dec. 14 32,99	* R. 22 ^h . 19 ^m . 24 ^s .	Nov. 12 44,68
* R. 21 ^h . 43 ^m . 57 ^s .	ζ Cephei SP.	Oct. 26.....75. 40. 14,28	β Pegasi.
Sept. 20.....71. 28. 8,28 26 13,10 27 10,08	Mar. 5.....32. 34. 33,46	Σ 2905.	Aug. 24.....62. 46. 22,37 30 22,32
Σ 2834.	ζ Cephei SP. R.	Oct. 26.....75. 38. 59,80	Sept. 14 21,14 24 20,66
Sept. 20.....71. 25. 47,63 26 47,91 27 47,69	Mar. 5.....32. 34. 33,61	ζ Aquarii.	Oct. 6 21,25 20 21,25
μ Capricorni.	Σ 2881.	Aug. 20.....90. 49. 32,41	β Pegasi R.
Oct. 13... 104. 17. 29,54	Sept. 20.....61. 12. 28,27 Oct. 13 26,18	ζ Pegasi.	Aug. 24.....62. 46. 23,04 30 21,42
30 Aquarii.	Σ 2882.	Aug. 22.....79. 59. 29,22 30 29,27	Sept. 14 22,25 24 21,79
July 23.....97. 16. 58,35	Oct. 24.....53. 2. 9,21	Dec. 8 28,06	Oct. 6 22,48 20 20,68
30 Aquarii R.	θ Aquarii.	ζ Pegasi R.	Σ 3012.
July 23.....97. 16. 59,01	Aug. 20.....98. 34. 1,98 Sept. 16 1,13	Aug. 22.....79. 59. 28,94 30 27,95	Sept. 20.....74. 14. 42,67 24 42,78
α Aquarii.	Σ 2889.	Dec. 8 30,39	Oct. 6 42,77
Sept. 10.....91. 5. 4,17 14 2,75	Oct. 26.....64. 30. 44,63	Piazzi XXII. 219.	Σ 3013.
α Aquarii R.	ϵ Cephei.	Sept. 20.....95. 2. 48,31 Oct. 6 48,94	Sept. 24.....74. 14. 20,74
Sept. 10.....91. 5. 5,23 14 5,06	Sept. 10.....33. 44. 34,06 20 34,32	ι Cephei.	Piazzi XXIII. 100.
Σ 2861.	Oct. 13 32,75 19 33,72	ι Cephei R.	Sept. 20.....32. 19. 19,55 Oct. 6 19,00
Sept. 20.....69. 57. 44,76 26 44,09	Nov. 4 34,91 Dec. 14 32,84	Aug. 30.....24. 37. 45,00	Nov. 3 18,74
ζ Cephei.	ϵ Cephei R.	ι Cephei SP.	Σ 3024.
Sept. 10.....32. 34. 34,05 Nov. 4 35,13 Dec. 14 33,47	Sept. 10.....33. 44. 33,63 Oct. 19 32,67 Nov. 4 31,63 Dec. 14 33,29	Mar. 1.....24. 37. 46,88 10 45,14	Sept. 20.....47. 2. 54,09 24 55,48 Oct. 6 55,20
ζ Cephei R.	ρ Aquarii.	ι Cephei SP. R.	ι Piscium.
Sept. 10.....32. 34. 33,17	Sept. 20.....98. 36. 41,34 Oct. 13 39,21 19 41,00 26 42,05	Mar. 1.....24. 37. 45,86 10 46,11	Aug. 22.....85. 13. 45,34 23 45,83 Oct. 31 45,62 Nov. 4 46,13 12 46,18
		λ Aquarii.	
		Aug. 22.....98. 25. 6,75 Nov. 12 6,22	

ι Piscium R.	γ Cephei R.	γ Cephei SP. R.	ω Piscium <i>continued.</i>
Aug. 22..... ⁰ 85. 13. 45,36 23 46,10	Apr. 4..... ⁰ 13. 14. 56,67 5 55,91 7 57,05	Mar. 18..... ⁰ 13. 14. 57,65 Apr. 22 57,38	Nov. 12..... ⁰ 84. 0. 40,91
Oct. 31 46,64	Aug. 26 56,44	λ Piscium.	* R . 23 ^h . 56 ^m . 4 ^s .
Nov. 4 44,68	Sept. 24 56,60	Sept. 20.....89. 5. 19,39 24 19,98	Sept. 20.....26. 11. 15,90 24 15,17
γ Cephei.	Oct. 6 55,32	Oct. 6 20,23	Σ 3062.
Apr. 4.....13. 14. 57,12 5 57,23 7 57,07	γ Cephei SP.	ω Piscium.	Oct. 6.....32. 26. 40,17
Aug. 26 59,80	Mar. 18.....13. 14. 57,98	Aug. 22.....84. 0. 40,35 23 40,72	Piazzi XXIII. 276.
Sept. 24 57,77	Apr. 22 57,92		Nov. 3.....61. 51. 0,28 4 1,14 24 0,05
Oct. 6 58,16			

CATALOGUE of the CONCLUDED MEAN NORTH POLAR DISTANCES, JAN. 1, 1842;
with the ANNUAL VARIATIONS.

(The N.P.D. have been corrected for the Discordance of Zenith Points, and the Error of the Assumed
Co-latitude, in the manner explained in the Introduction.)

Name of Star.	Number of Obser- vations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.	Name of Star.	Number of Obser- vations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.
<i>α</i> Andromedæ	9	<i>h. m. s.</i> 0. 0. 14	61. 46. 54,23	-20,055	<i>γ</i> Ceti R.	1	<i>h. m. s.</i> 2. 35. 7	87. 26. 0,34	-15,633
<i>α</i> Andromedæ R.	9		54,65		<i>ε</i> Arietis	1	2. 50. 11	69. 17. 44,07	-14,776
<i>Σ</i> 1. <i>sf.</i>	1	0. 0. 43	53. 39. 47,17	-20,055	<i>α</i> Persei	8	3. 13. 4	40. 42. 25,10	-13,348
<i>Σ</i> 4. <i>np.</i>	2	0. 1. 44	82. 25. 33,06	-20,055	<i>α</i> Persei R.	8		25,25	
<i>γ</i> Pegasi	5	0. 5. 6	75. 41. 42,06	-20,051	<i>g</i> Arietis	2	3. 14. 59	65. 50. 24,47	-13,223
<i>γ</i> Pegasi R.	5		42,01		<i>Σ</i> 401.	3	3. 21. 53	62. 58. 20,48	-12,768
<i>Σ</i> 19. <i>np.</i>	3	0. 8. 29	54. 14. 50,89	-20,042	<i>η</i> Tauri	5	3. 38. 6	66. 23. 18,05	-11,637
<i>Σ</i> 24. <i>nf.</i>	3	0. 10. 19	64. 44. 10,69	-20,035	<i>η</i> Tauri R.	5		19,00	
<i>Σ</i> 25.	2	0. 10. 33	74. 53. 9,97	-20,034	<i>ε</i> Persei. <i>sp.</i>	1	3. 47. 16	50. 27. 9,50	-10,978
<i>d</i> Piscium	3	0. 12. 28	82. 41. 15,17	-20,025	<i>ε</i> Persei R.	1		10,01	
<i>α</i> Cassiopeïæ	20	0. 31. 35	34. 19. 48,08	-19,865	<i>μ</i> Persei	1	4. 3. 19	41. 59. 57,13	-9,774
<i>α</i> Cassiopeïæ R.	20		48,23		<i>μ</i> Persei R.	1		56,32	
<i>α</i> Cassiopeïæ SP. ...	3		46,61		<i>Σ</i> 535. <i>sf.</i>	4	4. 14. 33	78. 59. 44,26	-8,903
<i>α</i> Cassiopeïæ SP. R. .	2		48,25		<i>ν</i> ¹ Tauri	2	4. 16. 52	67. 33. 1,36	-8,726
55 Piscium. <i>nf.</i>	1	0. 31. 37	69. 25. 45,47	-19,864	<i>Σ</i> 559. <i>np.</i>	1	4. 24. 24	72. 19. 21,62	-8,124
<i>Σ</i> 51. <i>np.</i>	3	0. 35. 17	73. 30. 32,40	-19,818	Aldebaran	6	4. 26. 52	73. 48. 49,89	-7,926
* (Mag. 8).	4	0. 38. 41	78. 20. 5,08	-19,770	Aldebaran R.	6		51,63	
58 Piscium	4	0. 38. 47	78. 53. 20,23	-19,770	2 Camelopardi. <i>sf.</i> ..	3	4. 27. 28	36. 50. 45,66	-7,876
<i>ζ</i> Andromedæ	2	0. 38. 59	66. 35. 35,31	-19,766	<i>Σ</i> 577.	3	4. 31. 37	52. 47. 48,73	-7,547
<i>ζ</i> Andromedæ R.	2		36,23		<i>τ</i> Tauri	2	4. 32. 46	67. 21. 7,15	-7,452
<i>δ</i> Piscium	1	0. 40. 30	83. 16. 33,47	-19,743	<i>k</i> Tauri	1	4. 48. 29	65. 11. 58,58	-6,156
65 Piscium. <i>sf.</i>	2	0. 41. 25	63. 9. 3,87	-19,729	<i>k</i> Tauri R.	1		57,36	
<i>Σ</i> 63. <i>nf.</i>	4	0. 41. 57	79. 1. 48,03	-19,721	<i>ω</i> Aurigæ. <i>sf.</i>	3	4. 48. 33	52. 21. 19,73	-6,156
Piazzi O. 208.	3	0. 43. 19	78. 4. 30,82	-19,698	<i>Σ</i> 644.	5	4. 59. 38	52. 54. 24,17	-5,219
A.S.C. 93.	5	0. 47. 52	76. 54. 17,17	-19,620	<i>Σ</i> 652. <i>nf.</i>	2	5. 3. 37	89. 9. 41,92	-4,887
<i>ε</i> Piscium	1	0. 54. 45	82. 57. 42,80	-19,486	Capella	13	5. 5. 2	44. 10. 13,24	-4,762
<i>ε</i> Piscium R.	1		41,42		Capella R.	13		13,69	
<i>μ</i> Cassiopeïæ	1	0. 57. 49	35. 51. 27,17	-19,428	<i>Σ</i> 694.	3	5. 14. 19	65. 11. 38,76	-3,970
Polaris	24	1. 2. 44	1. 31. 58,51	-19,306	<i>β</i> Tauri	5	5. 16. 19	61. 31. 56,53	-3,798
Polaris R.	24		58,91		<i>β</i> Tauri R.	4		57,21	
Polaris SP.	23		59,14		118 Tauri	3	5. 19. 33	64. 59. 2,25	-3,519
Polaris SP. R.	23		60,04		32 Orionis. <i>nf.</i>	3	5. 22. 20	84. 10. 41,02	-3,281
<i>φ</i> Piscium. <i>nf.</i>	3	1. 5. 11	66. 15. 16,62	-19,250	33 Orionis. <i>sp.</i>	3	5. 22. 57	86. 49. 59,72	-3,224
42 Ceti	3	1. 11. 44	91. 20. 25,89	-19,081	<i>Σ</i> 734*.	2	5. 25. 8	91. 50. 7,16	-3,036
<i>ξ</i> Andromedæ	2	1. 13. 4	45. 18. 3,96	-19,047	<i>λ</i> Orionis. <i>sp.</i>	1	5. 26. 26	80. 10. 34,24	-2,928
<i>ξ</i> Andromedæ R.	2		3,15		<i>ι</i> Orionis. <i>np.</i>	1	5. 27. 42	96. 1. 7,48	-2,820
<i>η</i> Piscium	1	1. 23. 2	75. 28. 16,74	-18,754	125 Tauri	1	5. 29. 57	64. 11. 51,86	-2,625
<i>η</i> Piscium R.	1		14,33		125 Tauri R.	1		51,97	
A.S.C. 175.	3	1. 27. 47	83. 9. 55,38	-18,603	<i>Σ</i> 757.	3	5. 30. 2	90. 17. 0,36	-2,618
51 Andromedæ	3	1. 28. 19	42. 10. 29,21	-18,584	<i>Σ</i> 758. <i>sf.</i>	1	5. 30. 5	90. 16. 57,51	-2,611
51 Andromedæ R.	3		28,83		<i>ζ</i> Orionis. <i>np.</i>	3	5. 32. 47	92. 1. 52,37	-2,379
Piazzi I. 191. <i>sp.</i> ..	3	1. 43. 39	79. 58. 23,50	-18,039	52 Orionis.	3	5. 39. 31	83. 36. 25,07	-1,792
<i>γ</i> Arietis. <i>s.</i> R.	1	1. 44. 52	71. 28. 59,13	-17,994	<i>C</i> Tauri	1	5. 43. 24	62. 25. 53,89	-1,450
<i>γ</i> Arietis. <i>s.</i> R.	1		62,33		<i>α</i> Orionis	4	5. 46. 37	82. 37. 41,43	-1,168
<i>β</i> Arietis	3	1. 45. 55	69. 58. 0,81	-17,951	<i>α</i> Orionis R.	4		42,05	
A.S.C. 203.	3	1. 47. 44	88. 56. 9,17	-17,879	H Geminorum	3	5. 54. 31	66. 44. 3,97	-0,481
<i>γ</i> Andromedæ. <i>sp.</i> ..	6	1. 54. 14	48. 25. 54,03	-17,614	<i>Σ</i> 840. <i>nf.</i>	2	5. 57. 42	79. 14. 25,40	-0,204
<i>γ</i> Andromedæ R.	6		53,79		<i>Σ</i> 848†	3	5. 59. 33	76. 0. 46,95	-0,044
<i>α</i> Arietis	1	1. 58. 17	67. 17. 15,23	-17,442	<i>a</i> Lyncis	1	6. 3. 20	28. 26. 37,39	+0,292
<i>α</i> Arietis R.	1		15,01		<i>a</i> Lyncis R.	1		39,34	
<i>Σ</i> 221. <i>np.</i>	3	2. 0. 57	70. 24. 11,55	-17,324	Piazzi VI. 62.	1	6. 11. 47	68. 48. 14,16	+1,028
<i>ι</i> Trianguli. <i>sp.</i>	2	2. 3. 13	60. 26. 25,88	-17,225	<i>μ</i> Geminorum	4	6. 13. 24	67. 24. 42,30	+1,175
<i>θ</i> ¹ Arietis	1	2. 9. 21	70. 49. 57,01	-16,946	15 Geminorum	3	6. 18. 22	69. 7. 11,52	+1,603
9 Persei	2	2. 11. 23	34. 52. 54,40	-16,848	* (Mag. 8).	4	6. 19. 46	69. 5. 29,28	+1,726
9 Persei R.	2		54,35		* (Mag. 7. 8).	4	6. 21. 2	69. 7. 12,93	+1,835
<i>Σ</i> 274. <i>sp.</i>	3	2. 23. 23	89. 36. 41,75	-16,259	12 Lyncis †	3	6. 32. 15	30. 24. 27,64	+2,813
<i>Σ</i> 285.	3	2. 29. 15	57. 16. 7,55	-15,951	<i>Σ</i> 953. <i>sf.</i>	3	6. 32. 31	80. 52. 23,69	+2,834
<i>ν</i> Arietis	2	2. 29. 51	68. 43. 30,22	-15,920	<i>ε</i> Geminorum	2	6. 34. 13	64. 43. 7,76	+2,979
<i>Σ</i> 291. <i>np.</i>	3	2. 32. 17	71. 52. 52,08	-15,791	<i>ζ</i> Geminorum	1	6. 54. 44	69. 12. 13,51	+4,746
<i>γ</i> Ceti. <i>sf.</i>	1	2. 35. 7	87. 26. 0,80	-15,633	<i>Σ</i> 1033.	3	7. 2. 18	37. 11. 40,55	+5,388

* The brightest of three.

† The *np* of the two close stars.

‡ The two close stars as single.

Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.	Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.
Σ 1037.	3	<i>h. m. s.</i> 7. 2. 59	62. 30. 47,73	+ 5,444	44 Leonis	2	<i>h. m. s.</i> 10. 16. 55	80. 24. 51,04	+ 18,061
δ Geminorum	7	7. 10. 41	67. 43. 57,53	+ 6,090	Piazzi X. 67. <i>sp.</i>	4	10. 17. 15	80. 25. 24,52	+ 18,073
δ Geminorum R.	6		57,35		Σ 1439. <i>np.</i>	3	10. 21. 27	68. 23. 20,95	+ 18,228
Σ 1083. <i>sp.</i>	3	7. 16. 15	69. 11. 57,30	+ 6,550	ρ Leonis	3	10. 24. 30	79. 52. 56,24	+ 18,339
Castor. <i>nf.</i>	5	7. 24. 31	57. 46. 16,77	+ 7,232	48 Leonis	2	10. 26. 33	82. 14. 5,79	+ 18,412
Castor R.	5		17,68		Σ 1457.	3	10. 30. 29	83. 26. 46,57	+ 18,546
Σ 1116.	3	7. 25. 44	77. 21. 27,42	+ 7,330	Σ 1460. <i>np.</i>	3	10. 31. 20	47. 1. 84,34	+ 18,573
ν Geminorum	1	7. 26. 11	62. 45. 32,52	+ 7,364	* (Mag. 7)	3	10. 33. 5	89. 27. 6,55	+ 18,630
Procyon	5	7. 31. 2	84. 22. 29,51	+ 8,741	Σ 1464. <i>sf.</i>	3	10. 33. 30	89. 26. 54,16	+ 18,644
Procyon R.	5		29,50		34 Sextantis	3	10. 34. 28	85. 35. 35,68	+ 18,676
Piazzi VII. 170.	3	7. 31. 43	84. 24. 37,19	+ 7,816	40 Sextantis. <i>sf.</i>	3	10. 41. 17	93. 11. 24,09	+ 18,883
κ Geminorum	2	7. 34. 54	65. 13. 44,03	+ 8,071	d Leonis	3	10. 52. 24	85. 32. 7,75	+ 19,189
Pollux	4	7. 35. 38	61. 35. 51,44	+ 8,132	α Ursæ Majoris	21	10. 53. 55	27. 23. 50,78	+ 19,229
Pollux R.	4		52,20		α Ursæ Majoris R.	21		51,11	
5 Argus. <i>sp.</i>	3	7. 40. 33	101. 48. 32,99	+ 8,522	α Ursæ Majoris SP.	8		51,52	
14 Canis Minoris ...	3	7. 50. 9	87. 21. 30,42	+ 9,273	α Ursæ Maj. SP. R.	8		51,05	
A.S.C. 985.	3	7. 54. 3	87. 14. 8,99	+ 9,570	Piazzi X. 229.	5	10. 55. 50	85. 30. 40,57	+ 19,274
Σ 1177. <i>np.</i>	3	7. 55. 55	62. 1. 34,00	+ 9,723	χ Leonis	2	10. 56. 52	81. 48. 39,84	+ 19,298
55 Camelopardi ...	1	7. 56. 59	21. 4. 11,66	+ 9,799	Piazzi XI. 9.	3	11. 5. 23	69. 0. 24,30	+ 19,489
55 Camelopardi R.	1		12,59		δ Leonis	4	11. 5. 42	68. 36. 41,03	+ 19,496
55 Camelopardi SP.	4		10,90		δ Leonis R.	4		40,56	
55 Camelop. SP. R.	4		11,55		Σ 1521. <i>np.</i>	3	11. 6. 52	61. 34. 6,36	+ 19,518
11 Cancri. <i>nf.</i>	4	7. 59. 9	62. 3. 55,11	+ 9,964	Σ 1527. <i>sp.</i>	3	11. 10. 43	74. 51. 40,50	+ 19,594
Σ 1200. <i>n.</i>	2	8. 4. 21	39. 45. 18,07	+ 10,354	Σ 1530. <i>np.</i>	3	11. 11. 44	96. 2. 1,92	+ 19,612
θ Cancri	2	8. 22. 35	71. 22. 33,79	+ 11,688	ι Leonis. <i>sp.</i>	1	11. 15. 41	78. 36. 3,71	+ 19,681
Σ 1244. <i>sp.</i>	3	8. 27. 5	47. 39. 9,60	+ 12,005	τ Leonis	1	11. 19. 49	86. 16. 27,78	+ 19,748
A.S.C. 1044. <i>sp.</i>	3	8. 27. 27	82. 49. 59,23	+ 12,029	57 Ursæ Majoris. <i>sp.</i>	3	11. 20. 33	49. 47. 37,60	+ 19,759
Piazzi VIII. 131. <i>np.</i>	3	8. 32. 13	40. 34. 27,96	+ 12,365	Σ 1544. <i>p.</i>	3	11. 22. 20	29. 25. 42,72	+ 19,785
Σ 1263. <i>sp.</i>	3	8. 34. 43	47. 44. 2,07	+ 12,536	88 Leonis. <i>sf.</i>	3	11. 23. 35	74. 45. 21,52	+ 19,802
δ Cancri	3	8. 35. 42	71. 16. 9,96	+ 12,599	90 Leonis. <i>nf.</i>	3	11. 26. 29	72. 19. 48,14	+ 19,841
ι Cancri. <i>sf.</i>	3	8. 37. 7	60. 40. 0,22	+ 12,700	A.S.C. 1359.	3	11. 27. 58	61. 20. 44,67	+ 19,860
Σ 1288. <i>sp.</i>	1	8. 43. 14	60. 57. 15,39	+ 13,108	ν Leonis	4	11. 28. 52	89. 57. 7,16	+ 19,870
Σ 1289. <i>sp.</i>	3	8. 44. 10	45. 48. 55,94	+ 13,169	Σ 1561. <i>nf.</i>	3	11. 30. 25	44. 1. 3,95	+ 19,888
ι^2 Cancri	3	8. 44. 35	58. 49. 36,24	+ 13,196	Σ 1564. <i>sp.</i>	2	11. 31. 21	62. 10. 6,08	+ 19,898
* (Mag. 8)	3	8. 45. 32	45. 43. 31,49	+ 13,258	Σ 1565. <i>sf.</i>	3	11. 31. 24	70. 7. 41,69	+ 19,899
ι Ursæ Majoris	5	8. 48. 22	41. 20. 34,74	+ 13,446	Σ 1566. <i>sf.</i>	1	11. 32. 25	68. 5. 14,18	+ 19,910
ι Ursæ Majoris R.	5		33,28		β Leonis	9	11. 41. 0	74. 32. 41,03	+ 19,987
α^2 Cancri	1	8. 49. 50	77. 32. 4,82	+ 13,538	β Leonis R.	9		41,31	
α^4 Cancri. <i>np.</i>	2	8. 51. 42	57. 8. 5,07	+ 13,657	β Virginis	5	11. 42. 28	87. 20. 42,01	+ 19,997
σ^2 Ursæ Majoris. <i>nf.</i>	2	8. 56. 24	22. 13. 50,40	+ 13,957	γ Ursæ Majoris	17	11. 45. 29	35. 25. 36,02	+ 20,016
Σ 1311. <i>sp.</i>	3	8. 58. 20	66. 23. 28,53	+ 14,078	γ Ursæ Majoris R.	17		35,30	
Σ 1312. <i>np.</i>	1	8. 59. 1	36. 58. 46,97	+ 14,119	γ Ursæ Majoris SP.	6		34,88	
Σ 1318. <i>nf.</i>	3	9. 2. 57	42. 21. 54,65	+ 14,361	γ Ursæ Maj. SP. R.	6		36,12	
Σ 1322.	3	9. 3. 51	72. 49. 49,95	+ 14,417	Σ 1582. <i>sp.</i>	3	11. 47. 53	67. 8. 18,92	+ 20,028
Σ 1333.	3	9. 8. 40	53. 58. 37,04	+ 14,707	Σ 1585. <i>np.</i>	3	11. 48. 30	48. 5. 39,89	+ 20,030
Σ 1338.	3	9. 11. 4	51. 8. 49,39	+ 14,850	Σ 1606.	3	12. 2. 48	49. 13. 43,24	+ 20,054
39 Lyncis. <i>sf.</i>	3	9. 11. 44	39. 47. 16,69	+ 14,889	Σ 1608. { <i>sp.</i>	2	12. 3. 35}	35. 41. 45,43	+ 20,053
21 Ursæ Majoris. <i>sf.</i>	3	9. 14. 24	35. 18. 32,47	+ 15,045	Σ 1608. { <i>nf.</i>	1		35. 41. 38,62	
Σ 1348.	3	9. 16. 9	82. 58. 24,05	+ 15,145	Σ 1619. <i>np.</i>	3	12. 7. 3	96. 22. 32,83	+ 20,046
Σ 1355. <i>np.</i>	3	9. 18. 58	83. 4. 41,56	+ 15,307	δ Ursæ Majoris	3	12. 7. 34	32. 5. 20,29	+ 20,044
α Hydræ	1	9. 19. 49	97. 58. 37,24	+ 15,355	δ Ursæ Majoris R.	3		20,40	
α Hydræ R.	1		38,58		δ Ursæ Majoris SP.	3		20,00	
Σ 1365. <i>np.</i>	3	9. 23. 22	87. 50. 28,17	+ 15,549	δ Ursæ Maj. SP. R.	3		19,71	
14 Leonis	3	9. 32. 43	79. 23. 31,12	+ 16,056	Piazzi XII. 33.	3	12. 10. 4	93. 4. 16,47	+ 20,037
Piazzi IX. 161. <i>np.</i>	3	9. 35. 15	86. 39. 11,15	+ 16,186	η Virginis	1	12. 11. 50	89. 47. 17,52	+ 20,029
ϵ Leonis	2	9. 36. 52	65. 30. 5,04	+ 16,272	Σ 1634. <i>np.</i>	2	12. 12. 45	66. 12. 25,23	+ 20,024
ϵ Leonis R.	2		5,26		* (Mag. 7, 8)	3	12. 13. 29	64. 7. 31,54	+ 20,021
Σ 1379. <i>np.</i>	3	9. 36. 53	80. 23. 35,83	+ 16,272	Σ 1639.	3	12. 16. 31	63. 32. 26,18	+ 20,003
ν Ursæ Majoris	2	9. 39. 43	30. 13. 19,28	+ 16,412	A.S.C. 1440.	2	12. 22. 32	79. 24. 28,84	+ 19,959
ν Ursæ Majoris R.	2		19,56		q Virginis	3	12. 25. 38	98. 34. 46,10	+ 19,930
Σ 1396. <i>np.</i>	2	9. 47. 55	78. 35. 15,78	+ 16,816	κ Draconis	1	12. 26. 41	19. 20. 23,64	+ 19,920
π Leonis	2	9. 51. 52	81. 12. 1,63	+ 17,000	κ Draconis R.	1		24,65	
Regulus	11	9. 59. 57	77. 15. 47,68	+ 17,368	κ Draconis SP.	4		23,78	
Regulus R.	11		46,78		κ Draconis SP. R.	4		24,04	
Σ 1417. <i>sp.</i>	3	10. 6. 29	70. 5. 37,05	+ 17,646	24 Comæ Beren. <i>sf.</i>	3	12. 27. 12	70. 45. 7,33	+ 19,915
λ Ursæ Majoris	4	10. 7. 33	46. 17. 57,28	+ 17,687	γ Virginis	3	12. 33. 40	90. 34. 54,73	+ 19,839
λ Ursæ Majoris R.	4		56,76		35 Comæ Berenices†	3	12. 45. 31	67. 53. 40,13	+ 19,661
γ Leonis. <i>np.</i>	2	10. 11. 15	69. 21. 40,63	+ 17,839	ψ Virginis	3	12. 46. 9	98. 40. 45,51	+ 19,650
Σ 1426*	3	10. 12. 16	82. 46. 35,29	+ 17,879	Σ 1719. <i>sp.</i>	3	12. 59. 16	88. 33. 50,67	+ 19,389
Piazzi X. 58. <i>sp.</i>	3	10. 15. 58	36. 34. 38,50	+ 18,026	θ Virginis. <i>sf.</i>	1	13. 1. 47	94. 41. 37,99	+ 19,333

* The close double-star.

† The *sp* of the two close stars.

Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.	Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.
Σ 1734.....	3	<i>h. m. s.</i> 13. 12. 41	<i>° ' "</i> 86. 13. 33.77	+ 19,055	β^1 Scorpii.....	1	<i>h. m. s.</i> 15. 56. 16	<i>° ' "</i> 109. 22. 0.94	+ 10,308
Σ 1742.....	3	13. 16. 15	87. 46. 24.32	+ 18,956	Σ 2007. <i>sf.</i>	1	15. 58. 42	76. 14. 44.69	+ 10,129
Spica.....	3	13. 16. 53	100. 20. 4.08	+ 18,937	Σ 2011. <i>sp.</i>	1	16. 1. 16	60. 34. 44.09	+ 9,933
Spica R.....	3		3.88		Σ 2017. <i>nf.</i>	1	16. 4. 52	75. 2. 18.57	+ 9,659
Σ 1751. <i>sp.</i>	3	13. 22. 47	79. 51. 53.58	+ 18,762	δ Ophiuchi.....	4	16. 6. 4	93. 16. 56.75	+ 9,562
Piazzi XIII. 127. <i>sp.</i>	3	13. 26. 13	89. 30. 8.75	+ 18,652	δ Ophiuchi R.....	4		56.16	
Σ 1760. <i>sp.</i>	3	13. 26. 59	62. 54. 42.20	+ 18,628	σ Scorpii.....	1	16. 11. 36	115. 12. 26.02	+ 9,137
81 Virginis. <i>sp.</i>	3	13. 29. 19	97. 3. 49.38	+ 18,551	η Draconis.....	7	16. 21. 52	28. 7. 36.60	+ 8,327
Σ 1768. <i>sp.</i>	3	13. 30. 26	52. 53. 56.88	+ 18,514	η Draconis R.....	7		36.31	
84 Virginis. <i>nf.</i>	3	13. 35. 7	85. 39. 35.02	+ 18,354	ζ Herculis.....	3	16. 35. 20	58. 6. 26.00	+ 7,242
Σ 1776. <i>sp.</i>	3	13. 35. 16	42. 58. 50.75	+ 18,348	Σ 2087. <i>np.</i>	2	16. 35. 57	66. 1. 44.89	+ 7,194
α Virginis.....	1	13. 41. 18	107. 20. 38.60	+ 18,127	56 Herculis.....	3	16. 48. 34	64. 0. 37.29	+ 6,149
η Ursæ Majoris.....	13	13. 41. 18	39. 53. 45.57	+ 18,127	η Ophiuchi.....	3	17. 1. 19	105. 31. 23.25	+ 5,078
η Ursæ Majoris R..	13		46.48		ϵ Ursæ Minoris.....	6	17. 2. 22	7. 42. 46.96	+ 4,994
A.C.S. 1585. <i>np.</i>	3	13. 46. 42	97. 16. 42.18	+ 17,922	ϵ Ursæ Minoris R..	6		48.25	
η Bootis.....	5	13. 47. 10	70. 48. 27.31	+ 17,902	ϵ Ursæ Minoris SP.	1		49.07	
η Bootis R.....	5		26.75		ϵ Ursæ Min. SP. R.	1		48.06	
Σ 1793. <i>nf.</i>	3	13. 51. 50	63. 24. 47.57	+ 17,715	A Ophiuchi (1st star)	1	17. 5. 38	116. 21. 48.24	+ 4,710
Σ 1807. <i>sp.</i>	3	14. 3. 9	92. 34. 59.16	+ 17,228	α Herculis. <i>np.</i>	4	17. 7. 27	75. 25. 29.52	+ 4,557
Σ 1813. <i>sp.</i>	3	14. 5. 30	83. 51. 27.36	+ 17,123	α Herculis R.....	5		28.93	
Σ 1816.....	3	14. 6. 53	60. 9. 9.74	+ 17,058	Σ 2147. <i>np.</i>	3	17. 11. 24	60. 54. 46.81	+ 4,220
Σ 1817.....	3	14. 7. 6	62. 33. 47.53	+ 17,050	* (Mag. 7, 8).....	2	17. 11. 45	60. 55. 12.55	+ 4,191
Σ 1823. <i>np.</i>	3	14. 8. 6	78. 57. 13.90	+ 17,004	θ Ophiuchi.....	3	17. 12. 19	114. 50. 5.37	+ 4,141
Arcturus.....	6	14. 8. 27	69. 59. 31.98	+ 18,945	Piazzi XVII. 94. <i>sp.</i>	3	17. 17. 27	74. 14. 41.55	+ 3,705
Arcturus R.....	6		31.81		α Ophiuchi.....	1	17. 27. 36	77. 19. 11.41	+ 2,824
Piazzi XIV. 62. <i>np.</i>	3	14. 14. 18	97. 2. 16.02	+ 16,708	α Ophiuchi R.....	1		10.64	
Piazzi XIV. 70. <i>sf.</i>	3	14. 16. 12	100. 56. 55.74	+ 16,618	Piazzi XVII. 300. <i>np.</i>	3	17. 49. 29	71. 38. 41.71	+ 0,919
Σ 1847. <i>nf.</i>	3	14. 20. 13	99. 29. 34.32	+ 16,420	95 Herculis <i>sp.</i>	3	17. 54. 48	68. 23. 55.00	+ 0,452
Σ 1850. <i>sp.</i>	3	14. 21. 36	61. 0. 1.94	+ 16,349	γ^2 Sagittarii.....	1	17. 55. 40	120. 25. 3.25	+ 0,379
ζ Bootis.....	3	14. 33. 36	75. 35. 25.32	+ 15,718	70 Ophiuchi. <i>np.</i> ...	3	17. 57. 28	87. 27. 26.26	+ 0,219
Σ 1867.....	3	14. 34. 2	58. 1. 36.55	+ 15,695	Piazzi XVII. 362. <i>nf.</i>	3	17. 58. 23	78. 0. 15.07	+ 0,138
Σ 1866.....	3	14. 34. 3	79. 47. 38.46	+ 15,691	Σ 2278*.....	3	18. 0. 6	33. 34. 46.18	0,000
Σ 1870. <i>nf.</i>	3	14. 35. 10	81. 14. 50.80	+ 15,632	μ^1 Sagittarii.....	3	18. 4. 19	111. 5. 35.66	- 0,380
ϵ Bootis. <i>sf.</i>	3	14. 38. 5	62. 15. 22.67	+ 15,469	η Serpentis.....	3	18. 13. 8	92. 56. 2.69	- 1,152
ϵ Bootis R.....	3		21.73		η Serpentis R.....	3		4.06	
Σ 1879. <i>sp.</i>	2	14. 38. 33	79. 40. 25.15	+ 15,443	59 Serpentis. <i>sf.</i> ...	3	18. 19. 8	89. 53. 31.44	- 1,675
Σ 1883.....	3	14. 41. 3	83. 22. 48.05	+ 15,302	δ Ursæ Minoris.....	14	18. 23. 17	3. 24. 25.74	- 2,021
Σ 1884. <i>sp.</i>	3	14. 41. 23	64. 58. 24.87	+ 15,283	δ Ursæ Minoris R..	13		25.16	
α^2 Libræ.....	4	14. 42. 9	105. 22. 51.25	+ 15,240	δ Ursæ Minoris SP.	5		26.20	
α^2 Libræ R.....	4		50.87		δ Ursæ Min. SP. R.	5		24.47	
β Ursæ Minoris....	8	14. 51. 14	15. 11. 55.66	+ 14,713	Σ 2339. <i>sf.</i>	3	18. 26. 47	72. 22. 59.37	- 2,336
β Ursæ Minoris R..	8		55.15		α Lyræ.....	26	18. 31. 35	51. 21. 34.51	- 2,757
β Ursæ Minoris SP.	2		54.90		α Lyræ R.....	26		34.22	
β Ursæ Min. SP. R.	2		55.36		Σ 2369.....	3	18. 36. 0	87. 31. 42.91	- 3,137
20 Libræ.....	2	14. 54. 50	114. 39. 20.75	+ 14,497	4 Aquilæ.....	3	18. 36. 51	88. 5. 43.21	- 3,209
δ Libræ.....	1	15. 3. 14	109. 11. 18.61	+ 13,979	4 Aquilæ R.....	2		42.31	
Σ 1919. <i>sp.</i>	3	15. 5. 40	70. 7. 49.23	+ 13,826	Σ 2375. <i>np.</i>	3	18. 37. 43	84. 39. 31.54	- 3,289
Σ 1921. <i>np.</i>	3	15. 6. 0	50. 43. 48.76	+ 13,805	Σ 2400. <i>sf.</i>	3	18. 41. 50	73. 55. 6.83	- 3,640
β Libræ.....	2	15. 8. 31	98. 47. 42.49	+ 13,643	Σ 2402.....	3	18. 42. 18	79. 29. 55.69	- 3,683
β Libræ R.....	2		43.04		Σ 2404. <i>nf.</i>	3	18. 43. 20	79. 12. 11.16	- 3,770
5 Serpentis. <i>sp.</i>	3	15. 11. 15	87. 37. 56.63	+ 13,469	β Lyræ.....	12	18. 44. 15	56. 48. 60.40	- 3,850
Σ 1935. <i>np.</i>	2	15. 13. 34	58. 43. 41.13	+ 13,316	β Lyræ R.....	12		59.91	
Σ 1942. <i>np.</i>	1	15. 19. 3	67. 58. 53.36	+ 12,947	Σ 2409. <i>sp.</i>	3	18. 44. 28	76. 39. 52.95	- 3,870
Σ 1943. <i>np.</i>	3	15. 19. 48	84. 4. 33.13	+ 12,902	Σ 2408. <i>np.</i>	3	18. 44. 32	79. 24. 13.73	- 3,870
Σ 1952. <i>nf.</i>	2	15. 24. 19	79. 47. 51.28	+ 12,599	σ Sagittarii.....	4	18. 45. 28	116. 29. 9.19	- 3,956
Σ 1953. <i>nf.</i>	4	15. 25. 9	83. 57. 10.31	+ 12,542	Σ 2415. <i>sf.</i>	3	18. 47. 44	69. 34. 44.58	- 4,148
δ Serpentis. <i>nf.</i>	3	15. 27. 16	78. 55. 43.59	+ 12,399	σ Draconis.....	2	18. 48. 51	30. 48. 11.49	- 4,241
α Coronæ Borealis..	2	15. 28. 0	62. 44. 59.07	+ 12,346	σ Draconis R.....	2		12.85	
α Coronæ Bor. R..	2		57.87		Σ 2422.....	3	18. 50. 42	64. 6. 32.47	- 4,398
Σ 1963. <i>np.</i>	3	15. 51. 28	59. 22. 35.43	+ 12,105	Σ 2437.....	3	18. 54. 58	71. 3. 10.71	- 4,767
κ Libræ.....	2	15. 52. 51	109. 9. 39.66	+ 12,011	* (Mag. 8).....	3	18. 57. 4	66. 52. 33.65	- 4,941
ζ Coronæ Bor. <i>sf.</i> ...	3	15. 53. 26	52. 50. 52.22	+ 11,970	Σ 2448. <i>sp.</i>	3	18. 58. 0	54. 29. 16.20	- 5,021
β Serpentis. <i>nf.</i>	2	15. 58. 54	74. 4. 44.54	+ 11,587	Σ 2445. <i>nf.</i>	3	18. 58. 0	66. 54. 10.16	- 5,021
Σ 1977. <i>sf.</i>	3	15. 42. 53	64. 3. 17.08	+ 11,293	ζ Aquilæ.....	3	18. 58. 9	76. 21. 59.26	- 5,036
π Scorpii.....	2	15. 49. 18	115. 39. 11.08	+ 10,825	ζ Aquilæ R.....	3		60.42	
Piazzi XV. 220. <i>sf.</i>	1	15. 49. 21	86. 7. 59.02	+ 10,825	Σ 2449. <i>sf.</i>	3	18. 58. 43	83. 4. 59.17	- 5,085
ζ Ursæ Minoris.....	5	15. 49. 50	11. 43. 21.81	+ 10,789	π Sagittarii.....	2	19. 0. 22	111. 16. 4.78	- 5,219
ζ Ursæ Minoris R..	5		20.98		17 Lyræ. <i>sf.</i>	3	19. 1. 27	57. 44. 35.10	- 5,310
ζ Ursæ Minoris SP.	5		22.05		Σ 2466. <i>np.</i>	3	19. 1. 44	60. 26. 40.75	- 5,339
ζ Ursæ Min. SP. R.	5		21.06		ψ Sagittarii.....	4	19. 5. 51	115. 31. 20.21	- 5,682

* The preceding and brightest of three.

Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.	Name of Star.	Number of Observations.	Approximate Mean R.A. Jan. 1, 1842.	Mean N.P.D. Jan. 1, 1842.	Annual Variation.
Σ 2486. <i>sp.</i>	3	<i>h. m. s.</i> 19. 8. 0	<i>° ' "</i> 40. 26. 18.24	- 5,864	ζ Cygni.....	3	<i>h. m. s.</i> 21. 6. 13	<i>° ' "</i> 60. 25. 4.53	- 14,562
η Lyrae.....	3	19. 8. 22	51. 7. 20.21	- 5,899	ζ Cygni R.	3		4,55	
η Lyrae R.....	3		19,90		Σ 2776 §.....	2	21. 6. 51	101. 0. 1,86	- 14,598
Σ 2499.....	3	19. 11. 48	68. 20. 7,65	- 6,184	α Capricorni.....	4	21. 7. 0	105. 49. 25,13	- 14,608
δ Draconis SP.....	1	19. 12. 29	22. 36. 59,33	- 6,239	α Capricorni.....	1	21. 13. 26	107. 30. 13,64	- 14,987
δ Draconis SP. R....	1		58,76		α Cephei.....	19	21. 14. 48	28. 4. 55,86	- 15,068
Σ 2500. <i>sp.</i>	3	19. 12. 32	70. 34. 3,24	- 6,239	α Cephei R.....	19		56,07	
Σ 2504. <i>sf.</i>	3	19. 14. 2	71. 8. 55,98	- 6,364	α Cephei SP.....	3		56,60	
δ Aquilae.....	3	19. 17. 32	87. 11. 41,29	- 6,658	α Cephei SP. R....	2		56,10	
δ Aquilae R.	3		42,13		β Aquarii.....	2	21. 23. 14	96. 15. 45,15	- 15,545
* (Mag. 8, 9).....	3	19. 20. 7	62. 56. 20,33	- 6,873	β Aquarii R.....	2		45,55	
Σ 2525.....	3	19. 20. 8	62. 59. 37,49	- 6,873	β Cephei.....	5	21. 26. 36	20. 7. 55,42	- 15,728
h^2 Sagittarii.....	2	19. 27. 5	115. 13. 33,58	- 7,438	β Cephei R.....	5		54,99	
θ Cygni.....	6	19. 32. 12	40. 8. 30,77	- 7,850	β Cephei SP.....	1		55,72	
θ Cygni R.....	6		30,95		β Cephei SP. R. ...	1		54,96	
Σ 2556.....	1	19. 32. 39	68. 6. 6,58	- 7,890	ξ Aquarii.....	1	21. 29. 20	98. 33. 32,53	- 15,875
ϵ^2 Sagittarii.....	2	19. 33. 29	106. 29. 17,59	- 7,957	Σ 2815 <i>sp.</i>	1	21. 32. 49	33. 8. 58,07	- 16,061
γ Aquilae.....	7	19. 38. 45	79. 46. 1,21	- 8,378	ϵ Pegasi.....	3	21. 36. 26	80. 50. 47,07	- 16,248
γ Aquilae R.	7		1,13		ϵ Pegasi R.....	3		45,98	
Σ 2576. <i>np.</i>	2	19. 39. 33	56. 45. 31,77	- 8,443	λ Capricorni.....	3	21. 38. 1	102. 5. 28,30	- 16,328
57 Sagittarii.....	2	19. 43. 1	109. 26. 24,41	- 8,713	* (Mag. 9, 10). <i>sp.</i> ..	3	21. 43. 57	71. 28. 11,05	- 16,622
α Aquilae.....	5	19. 43. 5	81. 32. 38,27	- 8,720	Σ 2834. <i>sf.</i>	3	21. 44. 14	71. 25. 48,30	- 16,639
α Aquilae R.	5		38,80		μ Capricorni.....	1	21. 44. 40	104. 17. 30,28	- 16,659
β Aquilae.....	4	19. 47. 33	83. 58. 58,96	- 8,532	30 Aquarii.....	1	21. 54. 58	97. 16. 59,04	- 17,145
β Aquilae R.	4		58,97		30 Aquarii R.....	1		58,50	
Σ 2600. <i>sp.</i>	1	19. 48. 25	67. 54. 35,12	- 9,144	α Aquarii.....	2	21. 57. 40	91. 5. 3,98	- 17,267
* (Mag. 8, 9).....	1	19. 52. 14	57. 8. 35,82	- 9,428	α Aquarii R.....	2		4,80	
Σ 2606.....	1	19. 52. 27	57. 8. 56,94	- 9,448	Σ 2861. <i>nf.</i>	2	21. 58. 34	69. 57. 45,01	- 17,306
Σ 2610. <i>sf.</i>	2	19. 53. 12	54. 53. 26,85	- 9,505	ζ Cephei.....	3	22. 5. 22	32. 34. 34,00	- 17,597
Σ 2613. <i>sf.</i>	2	19. 53. 54	79. 41. 4,78	- 9,563	ζ Cephei R.....	3		33,01	
* (Mag. 7, 8).....	2	19. 55. 47	74. 58. 34,06	- 9,706	ζ Cephei SP.....	1		33,40	
Σ 2618. <i>np.</i>	2	19. 56. 11	74. 58. 4,68	- 9,736	ζ Cephei SP. R....	1		33,49	
Σ 2619. { <i>sp.</i>	1}	19. 56. 21	42. 10. 28,39	- 9,749	Σ 2881. <i>np.</i>	2	22. 7. 23	61. 12. 27,81	- 17,684
Σ 2624*.....	1	19. 57. 36	42. 10. 26,68	- 9,749	Σ 2882.....	1	22. 7. 24	53. 2. 9,72	- 17,684
Σ 2643. <i>sp.</i>	2	20. 4. 32	54. 24. 56,64	- 9,844	θ Aquarii.....	2	22. 8. 30	98. 34. 2,26	- 17,728
Σ 2651. <i>sf.</i>	2	20. 6. 30	93. 27. 51,27	- 10,367	Σ 2889. <i>nf.</i>	1	22. 9. 1	64. 30. 45,22	- 17,749
α^1 Capricorni.....	3	20. 8. 53	74. 18. 54,29	- 10,516	ϵ Cephei.....	6	22. 9. 12	33. 44. 33,61	- 17,755
α^1 Capricorni R....	3		102. 59. 29,33	- 10,690	ϵ Cephei R.....	4		33,15	
α^2 Capricorni.....	3		29,41		ρ Aquarii.....	4	22. 11. 53	98. 36. 41,60	- 17,866
α^2 Capricorni R....	7	20. 9. 17	103. 1. 45,72	- 10,725	Σ 2902. <i>p.</i>	1	22. 16. 57	45. 26. 52,82	- 18,061
Σ 2658†.....	2	20. 9. 29	45,18		* (Mag. 8, 9).....	1	22. 19. 24	75. 40. 14,74	- 18,154
Σ 2659†.....	1	20. 10. 22	37. 21. 35,57	- 10,739	Σ 2905.....	1	22. 19. 29	75. 39. 0,26	- 18,158
* (Mag. 7).....	2	20. 11. 48	46. 49. 53,92	- 10,800	ζ Aquarii. <i>np.</i>	1	22. 20. 42	90. 49. 32,92	- 18,201
Σ 2665. <i>sp.</i>	2	20. 12. 0	76. 6. 22,01	- 10,908	ζ Pegasi.....	3	22. 23. 35	79. 59. 29,14	- 18,647
β^2 Capricorni.....	2	20. 12. 8	76. 7. 14,83	- 10,923	ζ Pegasi R.	3		28,98	
Σ 2671. <i>sf.</i>	1	20. 14. 30	105. 16. 29,71	- 10,935	Piazzi xxii. 219. <i>nf.</i>	2	22. 39. 42	95. 2. 49,29	- 18,836
λ Ursæ Minoris.....	7	20. 19. 57	35. 5. 42,48	- 11,106	ι Cephei.....	1	22. 44. 3	24. 37. 48,51	- 18,963
λ Ursæ Minoris R....	7		1. 9. 51,84	- 11,471	ι Cephei R.....	1		45,73	
λ Ursæ Minoris SP.	2		52,86		ι Cephei SP.....	2		45,78	
λ Ursæ Min. SP. R.	2		52,01		ι Cephei SP. R....	2		46,03	
ν Capricorni.....	3	20. 31. 3	51,83		λ Aquarii.....	2	22. 44. 22	98. 25. 7,18	- 18,972
α Delphini.....	3	20. 32. 18	108. 41. 24,09	- 12,284	β Piscium.....	2	22. 55. 50	87. 1. 44,86	- 19,274
α Delphini R.	3		74. 38. 27,72	- 12,370	β Pegasi.....	6	22. 56. 8	62. 46. 22,09	- 19,282
Σ 2708. <i>sf.</i>	2	20. 32. 42	28,38		β Pegasi R.	6		21,53	
α Cygni.....	19	20. 36. 3	51. 54. 31,10	- 12,393	Σ 3012.....	3	23. 19. 37	74. 14. 43,24	- 19,744
α Cygni R.....	19		45. 16. 52,76	- 12,626	Σ 3013. <i>f.</i>	1	23. 19. 40	74. 14. 21,24	- 19,746
Σ 2720. <i>sp.</i>	1	20. 36. 11	53,02		Piazzi XXIII. 100.	3	23. 22. 36	32. 19. 18,87	- 19,788
η Cephei.....	6	20. 42. 3	73. 37. 20,04	- 12,633	Σ 3024. <i>sf.</i>	3	23. 24. 24	47. 2. 55,33	- 19,814
η Cephei R.....	6		28. 46. 23,65	- 13,025	ω Piscium.....	5	23. 31. 50	85. 13. 46,13	- 19,354
4 Aquarii.....	3	20. 43. 3	25,02		ι Piscium R.....	4		45,56	
μ Aquarii.....	2	20. 44. 8	96. 12. 45,58	- 13,107	γ Cephei.....	6	23. 32. 55	13. 14. 57,04	- 19,916
Σ 2738. <i>nf.</i>	1	20. 51. 11	99. 34. 17,93	- 13,169	γ Cephei R.	6		57,33	
59 Cygni. <i>sf.</i>	3	20. 54. 27	74. 10. 13,95	- 13,624	γ Cephei SP.....	2		57,80	
θ Capricorni.....	1	20. 57. 3	43. 5. 35,12	- 13,832	γ Cephei SP. R....	2		57,49	
Σ 2750. <i>sf.</i>	1	20. 57. 29	107. 51. 21,34	- 14,000	λ Piscium.....	3	23. 33. 59	89. 5. 20,32	- 19,926
Σ 2757. <i>sf.</i>	1	20. 59. 39	77. 54. 10,28	- 14,026	ω Piscium.....	3	23. 51. 12	84. 0. 40,96	- 20,041
61 Cygni. <i>np.</i>	5	20. 59. 49	38. 13. 41,06	- 14,161	* (Mag. 10).....	2	23. 56. 4	26. 11. 15,03	- 20,052
61 Cygni R.....	5		52. 1. 26,41	- 17,467	Σ 3062.....	1	23. 58. 2	32. 26. 39,94	- 20,054
* (Mag. 9).....	2	21. 2. 25	25,50		Piazzi XXIII. 276.	3	23. 58. 26	61. 51. 1,07	- 20,055
			24. 59. 19,83	- 14,330					

* The north of the two close stars.

† The *sf* of the two close stars.† The *np* of the two close stars.

§ The star south-preceding the double-star.

SIDEREAL INTERVALS OCCUPIED BY TRANSITS OF DIAMETERS,

AND

VERTICAL DIAMETERS,

OF THE

SUN, MOON, AND PLANETS,

DEDUCED

FROM THE TRANSIT AND CIRCLE OBSERVATIONS, AND COMPARED
WITH THEIR VALUES IN THE NAUTICAL ALMANAC.

1842.

I. SIDEREAL INTERVALS occupied by TRANSITS of the SUN'S DIAMETER across the Meridian, and VERTICAL DIAMETERS of the SUN; compared with those of the NAUTICAL ALMANAC.

Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Latter.	Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Latter.
1842.	m. s.	s.	s.	" "	" "	" "	1842.	m. s.	s.	s.	" "	" "	" "
Jan. 17	2 . 19,95	19,64	- 0,31	32 . 33,71	33,20	- 0,51	June 1	2 . 16,92	16,62	- 0,30	31 . 32,06	34,40	+ 2,34
24	18,59	18,20	- 0,39	31,54	32,00	+ 0,46	2	17,16	16,74	- 0,42	36,02	34,00	- 2,02
27	17,90	17,54	- 0,36	31,50	31,20	- 0,30	3	17,55	16,84	- 0,71	31,76	33,80	+ 2,04
28	17,63	17,32	- 0,31	30,10	31,00	+ 0,90	4	17,38	16,94	- 0,44	36,47	33,60	- 2,87
							6	17,62	17,12	- 0,50	36,01	33,00	- 3,01
Feb. 1	16,38	16,40	+ 0,02	27,87	29,60	+ 1,73	7	17,74	17,20	- 0,54	31,95	32,80	+ 0,85
2	15,90	16,16	+ 0,26	29,64	29,40	- 0,24	8	17,82	17,28	- 0,54	33,17	32,60	- 0,57
3	15,85	15,92	+ 0,07	27,96	29,00	+ 1,04	10	17,73	17,42	- 0,31	33,87	32,20	- 1,67
11	13,90	14,10	+ 0,20	25,34	26,20	+ 0,86	11	17,98	17,48	- 0,50	30,75	32,00	+ 1,25
12				25,44	25,80	+ 0,36	13	18,19	17,60	- 0,59	28,33	31,60	+ 3,27
14	13,56	13,46	- 0,10	24,65	25,00	+ 0,35	14	18,46	17,64	- 0,82	31,93	31,60	- 0,33
15	13,07	13,26	+ 0,19	22,42	24,60	+ 2,18	15	18,04	17,68	- 0,36			
16	12,81	13,06	+ 0,25	23,54	24,20	+ 0,66	22	18,17	17,78	- 0,39			
19	12,43	12,46	+ 0,03	22,16	23,00	+ 0,84	23	17,77	17,76	- 0,01	30,05	30,40	+ 0,35
22	12,05	11,90	- 0,15	20,48	21,60	+ 1,12							
26	11,44	11,20	- 0,24	20,71	19,80	- 0,91	July 5	17,60	17,08	- 0,52			
28	11,34	10,88	- 0,46	18,50	18,80	+ 0,30	8	17,35	16,78	- 0,57			
							9	17,50	16,66	- 0,84			
Mar. 7	10,22	9,92	- 0,30	13,87	15,20	+ 1,33	11	16,93	16,44	- 0,49			
8	10,19	9,80	- 0,39	15,59	14,80	- 0,79	12	16,83	16,32	- 0,51	29,30	30,60	+ 1,30
9	10,00	9,70	- 0,30	13,64	14,20	+ 0,56	13	16,54	16,20	- 0,34			
10	10,03	9,60	- 0,43	13,86	13,60	- 0,26	14	16,64	16,06	- 0,58	30,48	30,80	+ 0,32
14				11,84	11,60	- 0,24	15	16,65	15,92	- 0,73	25,95	30,80	(+4,85)
17	9,50	9,06	- 0,44	9,85	10,00	+ 0,15	16	16,48	15,78	- 0,70	29,67	31,00	+ 1,33
18	9,52	9,00	- 0,52	7,49	9,40	+ 1,91	20	15,70	15,20	- 0,50	28,80	31,60	+ 2,80
19	9,33	8,96	- 0,37	7,17	8,80	+ 1,63	23	15,14	14,72	- 0,42	32,63	32,20	- 0,43
22	9,23	8,84	- 0,39	7,69	7,20	- 0,49	26	14,53	14,24	- 0,29	30,33	32,60	+ 2,27
26	9,09	8,78	- 0,31	4,61	5,00	+ 0,39							
28	9,16	8,78	- 0,38	32 . 4,17	4,00	- 0,17	Aug. 1	13,77	13,20	- 0,57	34,94	34,00	- 0,94
							2	13,55	13,02	- 0,53	35,41	34,40	- 1,01
Apr. 5	9,65	9,02	- 0,63	31 . 58,68	59,40	+ 0,72	3	12,63	12,84	+ 0,21	33,53	34,60	+ 1,07
6	9,67	9,08	- 0,59	58,30	59,00	+ 0,70	4	12,50	12,66	+ 0,16	34,03	35,00	+ 0,97
7	9,60	9,14	- 0,46	56,73	58,40	+ 1,67	8	11,78	11,98	+ 0,20	35,00	36,20	+ 1,20
8	9,95	9,20	- 0,75	58,35	57,80	- 0,55	9	11,81	11,82	+ 0,01	36,52	36,40	- 0,12
9	9,97	9,28	- 0,69	55,44	57,20	+ 1,76	10	11,40	11,66	+ 0,26	35,03	36,80	+ 1,77
11	9,83	9,44	- 0,39	53,85	56,00	+ 2,15	11	11,50	11,50	0,00	36,34	37,00	+ 0,66
16	10,42	9,92	- 0,50	53,49	53,60	+ 0,11	12	11,21	11,34	+ 0,13	38,90	37,40	- 1,50
19	10,72	10,26	- 0,46	49,62	52,00	+ 2,38	15	10,70	10,86	+ 0,16	39,65	38,40	- 1,25
20	10,99	10,38	- 0,61	53,09	51,40	- 1,69	16	10,61	10,70	+ 0,09	39,05	38,80	- 0,25
21	10,87	10,50	- 0,37	48,88	51,00	+ 2,12	17	10,50	10,56	+ 0,06	40,91	39,20	- 1,71
22				52,14	50,40	- 1,74	18	10,26	10,42	+ 0,16	38,16	39,60	+ 1,44
23	11,43	10,76	- 0,67	47,66	50,00	+ 2,34	20				38,69	40,40	+ 1,71
25				44,22	49,00	(+4,78)	22	9,78	9,86	+ 0,08	42,93	41,20	- 1,73
26	11,64	11,18	- 0,46	49,41	48,40	- 1,01	23	9,80	9,72	- 0,08	40,60	41,60	+ 1,00
27	11,71	11,32	- 0,39	45,67	48,00	+ 2,33	24				41,73	42,00	+ 0,27
28	12,16	11,46	- 0,70	49,14	47,40	- 1,74	26	9,89	9,36	- 0,53	42,27	42,80	+ 0,53
29	12,39	11,60	- 0,79	44,86	47,00	+ 2,14							
30	12,26	11,76	- 0,50	47,78	46,40	- 1,38	Sept. 2	9,24	8,66	- 0,58	46,27	45,80	- 0,47
							5				48,10	47,40	- 0,70
May 2	12,46	12,08	- 0,38	45,08	45,40	+ 0,32	9				49,57	49,40	- 0,17
3	12,75	12,24	- 0,51	43,93	45,00	+ 1,07	12	8,37	8,08	- 0,29	47,79	50,80	+ 3,01
9	13,62	13,20	- 0,42	39,67	42,40	+ 2,73	13	8,47	8,06	- 0,41	52,22	51,40	- 0,82
13				36,93	40,60	+ 3,67	14	8,56	8,04	- 0,52	50,19	51,80	+ 1,61
14	14,54	14,02	- 0,52	40,50	40,20	- 0,30	16	8,39	8,04	- 0,35	51,95	52,80	+ 0,85
16	15,11	14,36	- 0,75	40,48	39,60	- 0,88	17	8,32	8,02	- 0,30	54,56	53,40	- 1,16
23	15,99	15,44	- 0,55	36,22	37,00	+ 0,78	19	8,63	8,04	- 0,59	53,60	54,40	+ 0,80
28	16,55	16,14	- 0,41	36,46	35,60	- 0,86	20	8,38	8,06	- 0,32	53,88	55,00	+ 1,12
30	16,79	16,38	- 0,41	36,09	35,00	- 1,09	26	8,30	8,26	- 0,04	57,49	58,20	+ 0,71
31	2 . 16,91	16,50	- 0,41	31 . 31,07	34,60	+ 3,53	30	2 . 9,02	8,52	- 0,50	31 . 59,54	60,40	+ 0,86

Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Latter.	Day of Observation.	Interval by Observation.	Seconds of Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Seconds of Tabular Diameter.	Excess of Latter.
1842.	m. s.	s.	s.	" "	" "	" "	1842.	m. s.	s.	s.	" "	" "	" "
Oct. 1	2. 8,93	8,60	- 0,33	32. 1,06	1,00	- 0,06	Nov. 8	2. 15,32	15,36	+ 0,04	32. 17,80	21,20	+ 3,40
3	8,94	8,78	- 0,16	2,40	2,20	- 0,20	12	16,36	16,32	- 0,04	22,13	23,00	+ 0,87
4	9,07	8,88	- 0,19	0,71	2,80	+ 2,09	14	16,84	16,80	- 0,04	22,26	23,80	+ 1,54
5	9,66	8,98	- 0,68	2,46	3,40	+ 0,94	21	18,55	18,40	- 0,15	26,10	26,60	+ 0,50
6	9,78	9,10	- 0,68	3,01	3,80	+ 0,79	24	18,97	19,06	+ 0,09	26,23	27,80	+ 1,57
7	9,49	9,22	- 0,27	5,65	4,40	- 1,25	25	19,25	19,26	+ 0,01	28,90	28,00	- 0,90
11	10,37	9,76	- 0,61	6,65	6,60	- 0,05	29	20,08	20,04	- 0,04			
18	10,64	10,88	+ 0,24	9,88	10,40	+ 0,52							
20	11,27	11,24	- 0,03	8,92	11,40	+ 2,48	Dec. 5	20,98	21,04	+ 0,06	31,36	31,00	- 0,36
21	11,50	11,42	- 0,08	11,87	12,00	+ 0,13	13	22,08	21,98	- 0,10	33,45	32,80	- 0,65
26	12,43	12,42	- 0,01	13,03	14,60	+ 1,57	15	22,09	22,14	+ 0,05	29,27	33,20	+ 3,93
27	12,69	12,62	- 0,07	13,90	15,00	+ 1,10	17	22,38	22,26	- 0,12	33,62	33,60	- 0,02
28	12,95	12,84	- 0,11	12,72	15,60	+ 2,88	19	22,42	22,34	- 0,08	30,46	34,00	+ 3,54
29	13,09	13,06	- 0,03	16,42	16,20	- 0,22	21	22,28	22,38	+ 0,10	36,02	34,20	- 1,82
							22	22,50	22,40	- 0,10	33,63	34,20	+ 0,57
Nov. 1	13,80	13,74	- 0,06	13,57	16,60	(+4,03)	24	22,47	22,38	- 0,09	27,65	34,40	(+6,75)
4				18,08	19,20	+ 1,12	28	2. 22,33	22,24	- 0,09	32. 30,93	34,60	+ 3,67
5	2. 14,72	14,66	- 0,06	32. 17,96	19,60	+ 1,64							

II. SIDEREAL INTERVALS occupied by TRANSITS of the MOON'S DIAMETER across the Meridian, and VERTICAL DIAMETERS of the MOON; compared with those of the NAUTICAL ALMANAC.

Day of Observation.	Interval by Observation.	Tabular Interval.	Excess of Latter.	Calculated Error of Tabular Diameter.	Vertical Diameter by Observation.	Tabular Diameter.	Excess of Latter.
1842.	m. s.	m. s.	s.	"	" "	" "	"
Feb. 24	2. 21,10	2. 20,30	- 0,80	- 11,44	33. 31,29	33. 25,80	- 5,49
Aug. 20	2. 3,23	2. 3,26	+ 0,03	+ 0,43	29. 31,23	29. 26,02	- 5,21
Dec. 17	2. 24,64	2. 24,72	+ 0,08	+ 1,05	31. 33,91	31. 31,50	- 2,41

III. SIDEREAL INTERVALS *occupied by* TRANSITS of JUPITER'S DIAMETER, and VERTICAL DIAMETERS of JUPITER; compared with those of the NAUTICAL ALMANAC.

Day of Observation.	Interval by Observation.	Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Tabular Diameter.	Excess of Latter.	Day of Observation.	Interval by Observation.	Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Tabular Diameter.	Excess of Latter.
1842.	s.	s.	s.	"	"	"	1842.	s.	s.	s.	"	"	"
Mar. 4	2,27	2,52	+ 0,25				Aug. 2	3,45	3,44	- 0,01	45,88	44,00	- 1,88
8	2,60	2,56	- 0,04	31,67	33,00	+ 1,33	3	3,42	3,44	+ 0,02	45,73	44,00	- 1,73
18	2,43	2,62	+ 0,19	34,50	33,80	- 0,70	4	3,47	3,44	- 0,03	46,20	43,80	- 2,40
22	2,98	2,64	- 0,34	33,99	34,20	+ 0,21	5	3,35	3,44	+ 0,09	43,60	43,80	+ 0,20
25	2,40	2,68	+ 0,28	34,46	34,40	- 0,06	6	3,47	3,42	- 0,05	44,81	43,80	- 1,01
Apr. 4	2,78	2,76	- 0,02	34,27	35,60	+ 1,33	8	3,38	3,42	+ 0,04	44,46	43,60	- 0,86
7	3,00	2,78	- 0,22	34,78	36,00	+ 1,22	9	3,41	3,42	+ 0,01	45,19	43,60	- 1,59
8	3,12	2,80	- 0,32	36,11	36,20	+ 0,09	11	3,30	3,40	+ 0,10	44,50	43,40	- 1,10
10	3,28	2,82	- 0,46	35,94	36,40	+ 0,46	12	3,46	3,40	- 0,06	46,39	43,20	- 3,19
11	2,83	2,82	- 0,01	36,58	36,40	- 0,18	13	3,42	3,38	- 0,04	44,85	43,00	- 1,85
June 15	3,71	3,38	- 0,33	43,52	43,60	+ 0,08	15	3,35	3,36	+ 0,01	43,89	42,80	- 1,09
16	4,35	3,40	- 0,95	46,46	43,60	- 2,86	17	3,43	3,34	- 0,09	43,94	42,60	- 1,34
18	3,78	3,40	- 0,38	43,47	43,80	+ 0,33	20	3,05	3,32	+ 0,27	41,43	42,40	+ 0,97
20	3,98	3,42	- 0,56	45,23	44,00	- 1,23	23	3,35	3,30	- 0,05	43,73	42,00	- 1,73
21	3,88	3,42	- 0,46	44,98	44,00	- 0,98	26	3,43	3,26	- 0,17	42,95	41,80	- 1,15
27	4,02	3,44	- 0,58	46,31	44,40	- 1,91	Sept. 2	3,57	3,20	- 0,37	42,48	41,00	- 1,48
28	3,60	3,44	- 0,16	45,42	44,40	- 1,02	3	3,38	3,20	- 0,18	41,80	40,80	- 1,00
29	4,20	3,44	- 0,76	45,21	44,40	- 0,81	6				40,92	40,40	- 0,52
July 2	4,05	3,46	- 0,59	44,70	44,60	- 0,10	9	3,48	3,14	- 0,34	41,78	40,00	- 1,78
5	3,98	3,46	- 0,52				12	3,51	3,12	- 0,39	40,36	39,80	- 0,56
6	3,91	3,46	- 0,45	43,85	44,60	+ 0,75	14	3,58	3,08	- 0,50	41,28	39,60	- 1,68
12	4,26	3,50	- 0,76	45,82	44,60	- 1,22	15	3,07	3,08	+ 0,01	41,03	39,40	- 1,63
13	4,32	3,50	- 0,82				16	3,28	3,06	- 0,22	40,46	39,40	- 1,06
14	3,90	3,50	- 0,40	44,02	44,60	+ 0,58	19	3,11	3,04	- 0,07	39,56	39,00	- 0,56
15	3,83	3,50	- 0,33	43,94	44,60	+ 0,66	20	3,21	3,04	- 0,17	38,37	38,80	+ 0,43
18	4,05	3,48	- 0,57	43,49	44,60	+ 1,11	21	3,31	3,02	- 0,29	40,05	38,80	- 1,25
20	3,98	3,48	- 0,50				22	3,81	3,02	- 0,79	38,69	38,60	- 0,09
21	4,05	3,48	- 0,57	42,74	44,60	+ 1,86	26				40,82	38,20	- 2,62
23	3,58	3,48	- 0,10				29	3,10	2,94	- 0,16	38,74	37,80	- 0,94
25	3,66	3,48	- 0,18	42,97	44,40	+ 1,43	Oct. 1	3,18	2,94	- 0,24	37,59	37,60	+ 0,01
29	3,91	3,46	- 0,45	43,64	44,20	+ 0,56	5	3,06	2,88	- 0,18	37,68	37,00	- 0,68
Aug. 1	4,01	3,44	- 0,57	43,31	44,00	+ 0,69	8	3,80	2,86	- 0,94	38,14	36,80	- 1,34
							10	2,15	2,86	+ 0,71			
							12				39,60	36,40	- 3,20

IV. SIDEREAL INTERVALS *occupied by* TRANSITS *of* SATURN'S RING, *and* VERTICAL DIAMETERS *of* SATURN; *compared with those of the NAUTICAL ALMANAC.*

Day of Observation.	Interval by Observation.	Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Tabular Diameter.	Excess of Latter.	Day of Observation.	Interval by Observation.	Tabular Interval.	Excess of Latter.	Vertical Diameter by Observation.	Tabular Diameter.	Excess of Latter.
1842.	s.	s.	s.	"	"	"	1842.	s.	s.	s.	"	"	"
June 7	3,38	2,89	- 0,49	18,38	16,60	- 1,78	Aug. 4	2,93	2,94	+ 0,01	17,92	16,40	- 1,52
8	3,23	2,89	- 0,34	16,52	16,60	+ 0,08	5	2,90	2,94	+ 0,04	17,24	16,40	- 0,84
9	3,58	2,89	- 0,69	16,96	16,60	- 0,36	6	2,95	2,94	- 0,01	17,13	16,40	- 0,73
13	3,23	2,89	- 0,34	16,25	16,60	+ 0,35	8	2,76	2,94	+ 0,18	17,05	16,40	- 0,65
15	3,22	2,89	- 0,33	17,45	16,60	- 0,85	9	2,94	2,94	0,00	17,73	16,40	- 1,33
18	3,77	2,89	- 0,88	17,34	16,60	- 0,74	11	2,88	2,94	+ 0,06	16,46	16,40	- 0,06
20	3,40	2,89	- 0,51	16,27	16,60	+ 0,33	12	2,80	2,89	+ 0,09	17,42	16,20	- 1,22
21	3,27	2,89	- 0,38	16,27	16,60	+ 0,33	13	3,03	2,89	- 0,14	17,96	16,20	- 1,76
24	3,47	2,94	- 0,53	18,74	16,60	- 2,14	16	2,80	2,89	+ 0,09	17,21	16,20	- 1,01
27	3,82	2,94	- 0,88	16,96	16,60	- 0,36	17	2,88	2,89	+ 0,01	18,13	16,20	- 1,93
28	3,18	2,94	- 0,24	17,75	16,60	- 1,15	23	2,88	2,89	+ 0,01	17,79	16,00	- 1,79
29	3,60	2,94	- 0,66	16,44	16,60	+ 0,16	24	3,33	2,85	- 0,48	16,37	16,00	- 0,37
							26	3,25	2,85	- 0,40	17,21	16,00	- 1,21
July 2	3,52	2,94	- 0,58	17,26	16,60	- 0,66	31				16,92	15,80	- 1,12
5	3,46	2,94	- 0,52										
6	3,21	2,94	- 0,27	17,09	16,60	- 0,49	Sept. 2	3,43	2,85	- 0,58	18,09	15,80	- 2,29
11	3,75	2,94	- 0,81	20,50	16,60	- 3,90	3	3,35	2,85	- 0,50			
12	3,66	2,94	- 0,72				6	3,26	2,80	- 0,46	15,00	15,60	+ 0,60
13	3,63	2,94	- 0,69				9	3,81	2,80	(- 1,01)	16,04	15,60	- 0,44
14	3,50	2,94	- 0,56	20,12	16,60	- 3,52	12	3,20	2,80	- 0,40	16,71	15,60	- 1,11
15	3,45	2,94	- 0,51	18,46	16,60	- 1,86	14	3,16	2,75	- 0,41	15,98	15,40	- 0,58
20	3,32	2,94	- 0,38				15	3,23	2,75	- 0,48	17,32	15,40	- 1,92
21				19,91	16,60	- 3,31	16				16,63	15,40	- 1,23
23	3,43	2,94	- 0,49				19	3,23	2,75	- 0,48	16,69	15,40	- 1,29
25	2,98	2,94	- 0,04	16,69	16,60	- 0,09	20	3,01	2,75	- 0,26	16,88	15,40	- 1,48
29	3,28	2,94	- 0,34	20,02	16,60	- 3,42	26	3,22	2,71	- 0,51	16,90	15,20	- 1,70
Aug. 1	3,30	2,94	- 0,36				Oct. 1	3,11	2,71	- 0,40	14,98	15,00	+ 0,02
2				16,44	16,40	- 0,04	5	3,13	2,66	- 0,47	15,40	14,80	- 0,60
3	2,83	2,94	+ 0,11	16,67	16,40	- 0,27							

CONCLUDED

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES

OF THE CENTERS OF THE

SUN, MOON, AND PLANETS,

OBSERVED IN THE YEAR 1842,

COMPARED WITH THE RIGHT ASCENSIONS AND NORTH POLAR DISTANCES
INTERPOLATED FROM THE NAUTICAL ALMANAC;

WITH THE

GREENWICH MEAN SOLAR TIMES OF OBSERVATION.

Greenwich Mean Solar Time of Transit of Center.	Limb Observed.	R.A. of Center from Observation.	Seconds of Tabular R.A.	Error of Tables.	Limb Observed.	N.P.D. of Center from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d. h. m. s.		h. m. s.	s.	s.		° ' "	"	"
Jan. 17. 0. 10. 2,6		19. 56. 26,86	26,77	- 0,09		110. 45. 55,19	55,60	+ 0,41
24. 0. 12. 2,6		20. 26. 3,07	3,09	+ 0,02		109. 13. 43,95	46,74	+ 2,79
27. 0. 12. 42,1		20. 38. 32,38	32,42	+ 0,04		108. 28. 51,01	53,46	+ 2,45
28. 0. 12. 53,7		20. 42. 40,52	40,57	+ 0,05		108. 13. 14,85	15,16	+ 0,31
Feb. 1. 0. 13. 31,8		20. 59. 4,94	5,07	+ 0,13		107. 7. 26,50	29,08	+ 2,58
2. 0. 13. 39,4		21. 3. 9,14	9,16	+ 0,02		106. 50. 15,77	16,39	+ 0,62
3. 0. 13. 46,1		21. 7. 12,44	12,45	+ 0,01		106. 32. 45,34	45,89	+ 0,55
5. 0. 13. 57,0	II.	21. 15. 16,51	16,62	+ 0,11				
11. 0. 14. 10,9		21. 39. 9,71	10,01	+ 0,30		104. 2. 52,37	53,82	+ 1,45
12. 0. 14. 10,8	II.	21. 43. 6,16	6,15	- 0,01		103. 43. 1,97	2,83	+ 0,86
14. 0. 14. 7,6		21. 50. 56,09	56,12	+ 0,03		103. 2. 39,65	41,04	+ 1,39
15. 0. 14. 4,9		21. 54. 49,97	49,97	0,00		102. 42. 9,81	11,14	+ 1,33
16. 0. 14. 1,4		21. 58. 43,02	43,07	+ 0,05		102. 21. 27,96	29,14	+ 1,18
19. 0. 13. 46,7		22. 10. 17,97	17,99	+ 0,02		101. 18. 14,27	14,85	+ 0,58
22. 0. 13. 25,9		22. 21. 46,70	46,67	- 0,03		100. 13. 26,03	26,36	+ 0,33
26. 0. 12. 48,9		22. 36. 55,85	56,01	+ 0,16		98. 44. 53,49	53,57	+ 0,08
28. 0. 12. 27,1		22. 44. 27,06	27,23	+ 0,17		97. 59. 47,79	49,07	+ 1,28
Mar. 7. 0. 10. 55,4		23. 10. 31,02	31,17	+ 0,15		95. 18. 41,15	42,28	+ 1,13
8. 0. 10. 41,0		23. 14. 13,09	12,90	- 0,19		94. 55. 19,91	20,98	+ 1,07
9. 0. 10. 25,9		23. 17. 54,50	54,26	- 0,24		94. 31. 54,58	55,78	+ 1,20
10. 0. 10. 10,4		23. 21. 35,57	35,27	- 0,30		94. 8. 25,95	27,09	+ 1,14
14. 0. 9. 4,9	II.	23. 36. 16,05	16,16	+ 0,11		92. 34. 4,52	5,59	+ 1,07
17. 0. 8. 13,1		23. 47. 13,85	13,95	+ 0,10		91. 23. 1,99	2,49	+ 0,50
18. 0. 7. 55,6		23. 50. 52,78	52,77	- 0,01		90. 59. 19,90	20,39	+ 0,49
19. 0. 7. 38,0		23. 54. 31,74	31,39	- 0,35		90. 35. 36,18	38,29	+ 2,11
22. 0. 6. 43,3		0. 5. 26,51	26,30	- 0,21		89. 24. 35,16	35,69	+ 0,53
26. 0. 5. 29,2		0. 19. 58,44	58,11	- 0,33		87. 50. 11,37	13,88	+ 2,51
28. 0. 4. 51,9		0. 27. 14,12	13,84	- 0,28		87. 3. 16,43	18,08	+ 1,65
29. 0. 4. 32,8	I.	0. 30. 51,58	51,74	+ 0,16	N.	86. 39. 52,17	55,08	+ 2,91
30. 0. 4. 14,7	I.	0. 34. 29,92	29,69	- 0,23		86. 16. 34,70	35,88	+ 1,18
Apr. 5. 0. 2. 25,7		0. 56. 19,99	19,82	- 0,17		83. 58. 17,81	17,77	- 0,04
6. 0. 2. 8,2		0. 59. 58,92	58,77	- 0,15		83. 35. 33,21	34,07	+ 0,86
7. 0. 1. 50,6		1. 3. 37,86	37,93	+ 0,07		83. 12. 56,06	56,97	+ 0,91
8. 0. 1. 33,7		1. 7. 17,49	17,30	- 0,19		82. 50. 26,71	26,77	+ 0,06
9. 0. 1. 16,4		1. 10. 56,69	56,92	+ 0,23		82. 28. 3,69	3,86	+ 0,17
11. 0. 0. 43,7		1. 18. 17,04	16,96	- 0,08		81. 43. 40,05	41,16	+ 1,11
15. 23. 59. 26,6		1. 36. 42,43	42,24	- 0,19		79. 55. 14,19	16,25	+ 2,06
18. 23. 58. 44,1		1. 47. 49,55	49,50	- 0,05		78. 52. 8,86	11,34	+ 2,48
19. 23. 58. 30,9		1. 51. 32,88	32,69	- 0,19		78. 31. 30,89	31,34	+ 0,45
20. 23. 58. 18,0		1. 55. 16,41	16,28	- 0,13		78. 11. 2,13	2,73	+ 0,60
21. 23. 58. 5,7	II.	1. 59. 0,63	0,29	- 0,34		77. 50. 44,38	45,73	+ 1,35
22. 23. 57. 53,5		2. 2. 44,96	44,74	- 0,22		77. 30. 38,30	40,63	(+ 2,33)
24. 23. 57. 30,6	II.	2. 10. 15,16	15,02	- 0,14		76. 51. 6,30	7,62	+ 1,32
25. 23. 57. 19,9		2. 14. 0,99	0,88	- 0,11		76. 31. 39,94	40,31	+ 0,37
26. 23. 57. 9,8		2. 17. 47,38	47,24	- 0,14		76. 12. 24,49	26,11	+ 1,62
27. 23. 57. 0,2		2. 21. 34,32	34,11	- 0,21		75. 53. 24,53	25,41	+ 0,88
28. 23. 56. 50,9		2. 25. 21,58	21,50	- 0,08		75. 34. 36,96	38,50	+ 1,54
29. 23. 56. 42,3		2. 29. 9,50	9,43	- 0,07		75. 16. 4,83	5,70	+ 0,87
May 1. 23. 56. 27,1		2. 36. 47,30	46,96	- 0,34		74. 39. 43,31	43,69	+ 0,38
2. 23. 56. 20,0		2. 40. 36,80	36,57	- 0,23		74. 21. 54,41	55,19	+ 0,78
8. 23. 55. 50,6		3. 3. 46,64	46,32	- 0,32		72. 40. 38,08	38,46	+ 0,38
12. 23. 55. 42,6	II.	3. 19. 24,82	24,39	- 0,43		71. 38. 49,42	49,54	+ 0,12
13. 23. 55. 41,7		3. 23. 20,48	20,33	- 0,15		71. 24. 8,22	7,94	- 0,28
15. 23. 55. 42,0		3. 31. 13,88	13,88	0,00		70. 55. 41,37	41,42	+ 0,05
22. 23. 56. 0,7		3. 59. 8,52	8,37	- 0,15		69. 26. 31,93	31,89	- 0,04
27. 23. 56. 29,3		4. 19. 19,98	20,04	+ 0,06		68. 33. 18,94	17,86	- 1,08
29. 23. 56. 44,4		4. 27. 28,26	28,14	- 0,12		68. 14. 33,38	33,94	+ 0,56
30. 23. 56. 52,3		4. 31. 32,78	32,88	+ 0,10		68. 5. 45,67	45,74	+ 0,07
31. 23. 57. 1,2		4. 35. 38,21	38,06	- 0,15		67. 57. 19,78	20,33	+ 0,55
June 1. 23. 57. 10,0		4. 39. 43,60	43,68	+ 0,08		67. 49. 16,95	17,83	+ 0,88
2. 23. 57. 19,2		4. 43. 49,41	49,72	+ 0,31		67. 41. 37,69	38,52	+ 0,83
3. 23. 57. 29,2		4. 47. 56,03	56,14	+ 0,11		67. 34. 22,06	22,61	+ 0,55
5. 23. 57. 49,9		4. 56. 9,87	10,08	+ 0,21		67. 20. 59,69	61,30	+ 1,61
6. 23. 58. 0,7		5. 0. 17,27	17,56	+ 0,29		67. 14. 55,54	56,29	+ 0,75
7. 23. 58. 12,1		5. 4. 25,26	25,33	+ 0,07		67. 9. 14,44	15,29	+ 0,85

Greenwich Mean Solar Time of Transit of Center.				Limb Observed.	R. A. of Center from Observation.	Seconds of Tabular R.A.	Error of Tables.	Limb Observed.	N.P.D. of Center from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d.	h.	m.	s.		h.	m.	s.		°	'	"
June 9. 23. 58. 35,2					5. 12. 41,52	41,70	+ 0,13		66. 59. 4,01	5,57	+ 1,56
10. 23. 58. 47,2					5. 16. 50,14	50,24	+ 0,10		66. 54. 36,13	37,07	+ 0,94
12. 23. 59. 11,7					5. 25. 7,82	7,91	+ 0,09		66. 46. 53,05	53,45	+ 0,40
13. 23. 59. 24,2					5. 29. 16,84	16,98	+ 0,14		66. 43. 36,23	38,35	+ 2,12
14. 23. 59. 36,9					5. 33. 26,14	26,18	+ 0,04		66. 40. 48,41	47,84	- 0,57
22. 0. 1. 6,9					6. 2. 32,36	32,27	- 0,09				
23. 0. 1. 20,1					6. 6. 42,07	41,70	- 0,37		66. 32. 54,43	53,91	- 0,52
July 5. 0. 3. 42,9					6. 56. 24,02	24,30	+ 0,28				
6. 0. 3. 53,5				I.	7. 0. 31,17	31,32	+ 0,15				
8. 0. 4. 13,4					7. 8. 44,24	44,30	+ 0,06				
9. 0. 4. 22,7					7. 12. 50,12	50,22	+ 0,10	S.	67. 35. 43,89	43,98	+ 0,09
11. 0. 4. 40,1					7. 21. 0,72	0,81	+ 0,09				
12. 0. 4. 48,3					7. 25. 5,54	5,43	- 0,11		67. 58. 49,12	49,76	+ 0,64
13. 0. 4. 55,9					7. 29. 9,63	9,58	- 0,05				
14. 0. 5. 2,8					7. 33. 13,20	13,25	+ 0,05		68. 16. 5,93	7,05	+ 1,12
15. 0. 5. 9,4					7. 37. 16,31	16,41	+ 0,10		68. 25. 17,50	19,14	+ 1,64
16. 0. 5. 15,2					7. 41. 18,71	19,06	+ 0,35		68. 34. 54,21	53,14	- 1,07
20. 0. 5. 34,5					7. 57. 24,28	24,25	- 0,03		69. 16. 45,47	45,01	- 0,46
23. 0. 5. 42,9					8. 9. 22,37	22,28	- 0,09		69. 51. 49,49	49,10	+ 0,61
26. 0. 5. 46,1					8. 21. 15,29	15,16	- 0,13		70. 29. 55,50	55,08	- 0,42
28. 0. 5. 45,4				II.	8. 29. 7,64	7,52	- 0,12	N.	70. 56. 58,40	56,87	- 1,53
29. 0. 5. 43,9				I.	8. 33. 2,74	2,82	+ 0,08	S.	71. 10. 56,53	56,27	- 0,26
Aug. 1. 0. 5. 36,8					8. 44. 45,28	45,23	- 0,05		71. 54. 46,76	45,85	- 0,91
2. 0. 5. 33,1					8. 48. 38,12	38,20	+ 0,08		72. 9. 58,02	58,45	+ 0,43
3. 0. 5. 29,0					8. 52. 30,54	30,57	+ 0,03		72. 25. 28,62	28,54	- 0,08
4. 0. 5. 24,3					8. 56. 22,45	22,35	- 0,10		72. 41. 15,55	15,84	+ 0,29
8. 0. 4. 59,3					9. 11. 43,58	43,52	- 0,06		73. 47. 10,94	11,12	+ 0,18
9. 0. 4. 51,7					9. 15. 32,52	32,33	- 0,19		74. 4. 20,05	19,82	- 0,23
10. 0. 4. 43,2					9. 19. 20,48	20,55	+ 0,07		74. 21. 45,58	43,91	- 1,67
11. 0. 4. 34,6					9. 23. 8,44	8,18	- 0,26		74. 39. 22,45	22,81	+ 0,36
12. 0. 4. 24,9					9. 26. 55,34	55,23	- 0,11		74. 57. 16,46	16,40	- 0,06
15. 0. 3. 53,1					9. 38. 13,10	12,94	- 0,16		75. 52. 22,82	21,89	- 0,93
16. 0. 3. 41,1					9. 41. 57,61	57,73	+ 0,12		76. 11. 11,44	10,99	- 0,45
17. 0. 3. 28,9					9. 45. 41,94	41,98	+ 0,04		76. 30. 14,13	13,08	- 1,05
18. 0. 3. 16,2					9. 49. 25,75	25,70	- 0,05		76. 49. 28,52	27,98	- 0,54
20. 0. 2. 49,2				I.	9. 56. 51,81	51,65	- 0,16		77. 28. 35,57	34,98	- 0,59
22. 0. 2. 19,9					10. 4. 15,53	15,66	+ 0,13		78. 8. 28,86	29,67	+ 0,81
23. 0. 2. 4,8					10. 7. 56,93	56,99	+ 0,06		78. 28. 44,85	44,17	- 0,68
24. 0. 1. 49,3									78. 49. 10,01	9,66	- 0,35
26. 0. 1. 16,9					10. 18. 58,51	58,46	- 0,05		79. 30. 32,74	32,56	- 0,18
Sept. 1. 23. 59. 12,4					10. 44. 29,56	29,32	- 0,24		82. 0. 24,20	24,84	+ 0,64
4. 23. 58. 14,4				II.	10. 55. 21,08	21,00	- 0,08		83. 6. 43,03	42,44	- 0,59
8. 23. 56. 54,1									84. 36. 39,62	38,93	- 0,69
11. 23. 55. 52,3					11. 20. 34,43	34,26	- 0,17		85. 45. 4,29	3,62	- 0,67
12. 23. 55. 31,4					11. 24. 10,04	9,83	- 0,21		86. 8. 2,28	1,02	- 1,26
13. 23. 55. 10,2					11. 27. 45,38	45,30	- 0,08		86. 31. 3,07	2,42	- 0,65
15. 23. 54. 28,1					11. 34. 56,23	56,03	- 0,20		87. 17. 16,37	16,12	- 0,25
16. 23. 54. 6,7					11. 38. 31,37	31,35	- 0,02		87. 40. 28,33	27,72	- 0,61
18. 23. 53. 24,5					11. 45. 42,15	41,97	- 0,18		88. 26. 59,61	59,02	- 0,59
19. 23. 53. 3,2					11. 49. 17,33	17,34	+ 0,01		88. 50. 19,51	18,12	- 1,39
25. 23. 50. 58,7					12. 10. 51,78	51,65	- 0,13		91. 10. 40,05	40,22	+ 0,17
27. 23. 50. 18,6				II.	12. 18. 4,68	4,48	- 0,20	S.	91. 57. 30,94	30,32	- 0,62
29. 23. 49. 39,4					12. 25. 18,47	18,27	- 0,20		92. 44. 16,22	17,02	+ 0,80
30. 23. 49. 20,3					12. 28. 55,86	55,57	- 0,29		93. 7. 40,19	38,12	- 2,07
Oct. 2. 23. 48. 42,5					12. 36. 11,08	11,10	+ 0,02		93. 54. 16,32	14,32	- 2,00
3. 23. 48. 24,3					12. 39. 49,41	49,35	- 0,06		94. 17. 30,53	28,52	- 2,01
4. 23. 48. 6,5					12. 43. 28,13	27,96	- 0,17		94. 40. 40,55	39,62	- 0,93
5. 23. 47. 49,1					12. 47. 7,17	6,93	- 0,24		95. 3. 48,29	47,22	- 1,07
6. 23. 47. 31,8					12. 50. 46,46	46,28	- 0,18		95. 26. 52,49	50,92	- 1,57
7. 23. 47. 15,2				I.	12. 54. 26,33	26,03	- 0,30	S.	95. 49. 50,51	50,43	- 2,04
10. 23. 46. 27,3					13. 5. 28,01	27,84	- 0,17		96. 58. 20,11	19,43	- 0,68
17. 23. 44. 53,5					13. 31. 29,73	29,32	- 0,41		99. 34. 29,07	28,74	- 0,33
19. 23. 44. 31,6					13. 39. 0,88	0,62	- 0,26		100. 17. 57,93	56,45	- 1,53
20. 23. 44. 21,5					13. 42. 47,32	47,23	- 0,09		100. 39. 26,93	26,85	- 0,08
25. 23. 43. 42,2					14. 1. 50,75	50,64	- 0,11		102. 24. 29,70	29,96	+ 0,26
26. 23. 43. 36,6					14. 5. 41,64	41,52	- 0,12		102. 44. 57,01	58,07	+ 1,06

Greenwich Mean Solar Time of Transit of Center.	Limb Observed.	R.A. of Center from Observation.	Seconds of Tabular R.A.	Error of Tables.	Limb Observed.	N.P.D. of Center from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d. h. m. s.		h. m. s.	s.	s.		° ' "	"	"
Oct. 27. 23. 43. 31,8		14. 9. 33,36	33,16	- 0,20		103. 5. 12,19	14,27	+ 2,08
28. 23. 43. 27,7		14. 13. 25,79	25,58	- 0,21		103. 25. 18,30	18,38	+ 0,08
31. 23. 43. 20,0		14. 25. 7,79	7,58	- 0,21		104. 24. 13,37	12,69	- 0,68
Nov. 3. 23. 43. 19,7	I.	14. 36. 57,12	56,85	- 0,27		105. 21. 0,11	1,80	+ 1,70
4. 23. 43. 21,0		14. 40. 55,04	54,91	- 0,13		105. 39. 30,71	28,30	- 2,41
7. 23. 43. 30,4		14. 52. 54,05	54,03	- 0,02		106. 33. 13,56	12,32	- 1,24
11. 23. 43. 54,7		15. 9. 4,63	4,46	- 0,17		107. 40. 52,87	53,24	+ 0,37
13. 23. 44. 11,7		15. 17. 14,80	14,68	- 0,12		108. 12. 55,13	54,65	- 0,48
20. 23. 45. 37,4		15. 46. 16,68	16,70	+ 0,02		109. 54. 36,16	35,59	- 0,62
23. 23. 46. 26,9		15. 58. 55,98	55,64	- 0,34		110. 32. 50,58	51,00	+ 0,38
24. 23. 46. 44,7		16. 3. 10,36	10,21	- 0,15		110. 44. 51,27	50,91	- 0,41
28. 23. 48. 4,4		16. 20. 16,50	16,13	- 0,37		111. 28. 54,64	55,14	+ 0,50
Dec. 4. 23. 50. 23,7		16. 46. 15,55	15,50	- 0,05		112. 22. 39,84	40,08	+ 0,24
12. 23. 53. 59,1		17. 21. 24,01	23,78	- 0,23		113. 9. 47,19	47,94	+ 0,75
14. 23. 54. 56,5		17. 30. 14,68	14,49	- 0,19		113. 16. 59,27	61,65	+ 2,38
16. 23. 55. 54,8		17. 39. 6,27	6,18	- 0,09		113. 22. 23,15	23,67	+ 0,52
18. 23. 56. 54,1		17. 47. 58,88	58,63	- 0,25		113. 25. 50,71	53,38	+ 2,67
20. 23. 57. 53,8		17. 56. 51,80	51,60	- 0,20		113. 27. 29,33	30,20	+ 0,87
21. 23. 58. 23,6		18. 1. 18,22	18,21	- 0,01		113. 27. 37,24	36,09	- 1,15
23. 23. 59. 23,4		18. 10. 11,38	11,50	+ 0,12		113. 26. 22,23	22,92	+ 0,69
28. 0. 1. 22,9		18. 27. 57,40	57,44	+ 0,04		113. 18. 15,74	16,75	+ 1,01

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE MOON.

Greenwich Mean Solar Time of Transit of Center.	Limb Observed.	R.A. of Center from Observation.	Seconds of Tabular R.A.	Error of Tables.	Limb Observed.	N.P.D. of Center from Observation.	Seconds of Tabular N.P.D.	Error of Tables.	Effect of increas- ing Pa- rallax $\frac{1}{1000}$	Effect of assuming the Earth Spherical.
d. h. m. s.		h. m. s.	s.	s.		° ' "	"	"	"	"
Jan. 17. 4. 13. 44,3	I.	0. 0. 48,56	48,13	- 0,43	S.	84. 47. 17,58	20,43	+ 2,85	+ 2,42	12,26
19. 5. 39. 48,9	I.	1. 35. 0,49	0,13	- 0,36	S.	74. 23. 40,36	44,01	+ 3,65	2,03	12,95
25. 11. 27. 36,5	I.	7. 47. 24,57	26,00	+ 1,43	N.	68. 21. 15,86	23,11	+ 7,25	1,87	14,19
27. 13. 23. 32,3	II.	9. 51. 32,20	33,43	+ 1,23	S.	79. 31. 42,64	50,99	+ 8,35	2,48	14,00
Feb. 14. 2. 54. 2,6	I.	0. 31. 17,35	17,05	- 0,30						
15. 3. 36. 56,9	I.	1. 18. 15,30	14,77	- 0,53	S.	76. 7. 23,80	24,61	+ 0,81	2,08	12,75
16. 4. 22. 50,3	I.	2. 8. 12,78	12,27	- 0,51	S.	71. 30. 40,94	41,99	+ 1,05	1,89	12,96
17. 5. 12. 35,3	I.	3. 2. 2,49	2,19	- 0,30	S.	67. 40. 29,44	30,88	+ 1,44	1,72	13,14
18. 6. 6. 39,8	I.	4. 0. 12,39	12,07	- 0,32	S.	64. 56. 23,83	23,83	0,00	1,60	13,30
19. 7. 4. 43,9	I.	5. 2. 22,60	22,92	+ 0,32	S.	63. 39. 2,46	5,95	+ 3,49	1,56	13,48
21. 9. 6. 53,1	I.	7. 12. 45,03	45,88	+ 0,85	N.	66. 24. 50,46	53,73	+ 3,27	1,73	13,95
24. 11. 59. 14,7	I.	10. 17. 24,36	25,54	+ 1,18	N. & S.	82. 28. 44,06	53,55	+ 9,49	2,61	13,90
25. 12. 51. 59,8	II.	10. 17. 24,54	25,54	+ 1,00	S.	89. 23. 24,94	33,28	+ 8,34	2,90	13,31
26. 13. 43. 40,0	II.	11. 14. 14,62	15,74	+ 1,12	S.	96. 13. 19,69	28,69	+ 9,00	3,11	12,51
Mar. 4. 19. 2. 4,2	II.	12. 9. 59,77	0,59	+ 0,82						
26. 12. 19. 41,3	II.	17. 52. 55,59	55,50	- 0,09	S.	99. 11. 33,64	41,87	+ 8,23	3,20	12,13
Apr. 4. 20. 7. 32,7	II.	12. 36. 10,82	11,22	+ 0,40						
16. 4. 48. 52,4	I.	21. 0. 48,01	47,46	- 0,55						
19. 7. 35. 6,7	I.	6. 26. 55,76	56,23	+ 0,47	N.	65. 2. 51,58	57,09	+ 5,51	1,60	13,46
20. 8. 26. 23,6	I.	9. 25. 27,09	27,69	+ 0,60	N.	77. 3. 14,02	22,78	+ 8,76	2,27	13,74
22. 10. 6. 56,9	I.	10. 20. 48,99	49,51	+ 0,52	N.	83. 7. 41,96	52,66	+ 10,70	2,56	13,54
23. 10. 58. 18,9	I.	12. 9. 31,82	32,18	+ 0,36	N.	96. 10. 19,39	26,11	+ 6,72	3,07	12,47
25. 12. 46. 38,7	I.	13. 4. 58,90	59,27	+ 0,37	S.	102. 19. 36,56	46,98	+ 10,42	3,25	11,61
26. 13. 43. 11,5	II.	15. 1. 29,26	29,35	+ 0,09	S.	111. 53. 57,16	63,45	+ 6,29	3,38	9,99
	II.	16. 2. 7,87	8,06	+ 0,19	S.	114. 39. 40,27	42,46	+ 2,19	3,37	9,40
May 1. 18. 2. 18,6	II.	20. 41. 40,36	40,20	- 0,16	N.	106. 57. 12,33	7,30	- 5,03	+ 3,05	10,08
2. 18. 45. 20,7	II.	21. 28. 46,12	45,92	- 0,20						
4. 20. 6. 47,9	II.	22. 58. 19,76	19,21	- 0,55						

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE MOON, *continued*.

Greenwich Mean Solar Time of Transit of Center.	Limb Observed.	R.A. of Center from Observation.	Seconds of Tabular R.A.	Error of Tables.	Limb Observed.	N.P.D. of Center from Observation.	Seconds of Tabular N.P.D.	Error of Tables.	Effect of increas- ing Pa- rallax $\frac{1}{1000}$	Effect of assuming the Earth Spherical.
d. h. m. s.		h. m. s.	s.	s.		° ' "	"	"	"	"
May 16. 5. 31. 37,6	I.	9. 8. 4,72	5,49	+ 0,77	N.	75. 35. 30,07	37,50	+ 7,43	+ 2,18	13,67
17. 6. 22. 36,9	I.	10. 3. 8,96	9,70	+ 0,74	N.	81. 21. 34,28	41,05	+ 6,77	2,46	13,49
19. 8. 0. 42,9	I.	11. 49. 24,13	24,64	+ 0,51	N.	93. 58. 19,77	26,51	+ 6,74	2,96	12,56
24. 12. 26. 20,9	II.	16. 35. 28,19	28,53	+ 0,34	S.	115. 25. 14,08	13,67	- 0,41	3,35	9,19
31. 18. 2. 18,6	II.	22. 39. 57,06	57,04	- 0,02	N.	94. 16. 11,00	8,54	- 2,46	2,72	11,48
June 2. 19. 23. 4,1	II.	0. 8. 48,93	48,60	- 0,33						
3. 20. 5. 35,4	II.	0. 55. 23,79	22,98	- 0,81						
11. 2. 31. 7,0	I.	7. 49. 34,90	36,65	+ 1,75						
13. 4. 19. 32,7	I.	9. 46. 11,57	12,91	+ 1,34	N.	79. 40. 25,34	30,63	+ 5,29	2,39	13,64
14. 5. 9. 41,9	I.	10. 40. 25,59	26,37	+ 0,78	N.	85. 51. 56,34	60,89	+ 4,55	2,66	13,26
15. 5. 58. 28,3	I.	11. 33. 16,51	17,13	+ 0,62	N.	92. 13. 15,86	17,90	+ 2,04	2,89	12,69
16. 6. 47. 5,6	I.	12. 25. 58,35	58,92	+ 0,57	N.	98. 23. 22,44	25,05	+ 2,61	3,08	11,99
20. 10. 16. 48,0	I.	16. 12. 1,42	1,98	+ 0,56	N.	114. 55. 42,50	39,33	- 3,17	3,32	9,32
21. 11. 12. 31,2	I.	17. 11. 50,33	50,93	+ 0,60	S.	115. 45. 57,47	53,33	- 4,14	3,31	9,02
July 1. 18. 42. 48,6	II.	1. 22. 47,01	46,81	- 0,20	N.	75. 36. 14,12	13,51	- 0,61	2,04	12,80
11. 3. 4. 6,6	I.	10. 20. 56,68	58,54	+ 1,86						
12. 3. 54. 39,8	I.	11. 15. 34,77	36,33	+ 1,56	N.	90. 9. 37,78	40,29	+ 2,51	2,85	13,04
14. 5. 34. 5,7					N.	102. 27. 35,17	38,84	+ 3,67	3,19	11,48
15. 6. 25. 1,5	I.	13. 58. 10,80	11,15	+ 0,35	N.	107. 34. 41,03	40,26	- 0,77	3,27	10,67
16. 7. 17. 36,2	I.	14. 54. 50,68	50,89	+ 0,21	N.	111. 37. 31,92	29,84	- 2,09	3,31	9,95
20. 10. 53. 35,5	I.	18. 47. 11,72	12,16	+ 0,44						
21. 11. 43. 26,1	I.	19. 41. 7,07	7,50	+ 0,43	N.	111. 10. 43,85	37,52	- 6,33	3,15	9,56
23. 13. 14. 7,5	II.	21. 19. 56,16	56,50	+ 0,34	N.	103. 1. 38,27	37,11	- 1,16	2,96	10,54
Aug. 1. 19. 53. 13,3	II.	4. 40. 37,35	37,81	+ 0,46						
11. 4. 19. 58,6	I.	13. 39. 14,46	15,58	+ 1,12	N.	105. 52. 13,78	22,40	+ 8,62	3,29	11,08
15. 7. 57. 2,8	I.	17. 32. 40,54	40,74	+ 0,20	N.	115. 39. 47,64	44,64	- 3,00	3,27	9,04
16. 8. 49. 55,1	I.	18. 29. 38,01	37,93	- 0,08	S.	114. 31. 62,27	58,35	- 3,92	3,23	9,06
17. 9. 40. 0,9	I.	19. 21. 48,27	48,08	- 0,19	S.	112. 9. 38,52	36,17	- 2,35	3,17	9,34
19. 11. 12. 11,2	I.	21. 4. 7,17	7,04	- 0,13	S.	104. 35. 19,92	16,61	- 3,31	3,00	10,29
20. 11. 54. 26,0	I.	21. 50. 25,51	25,46	- 0,05	N. & S.	99. 51. 16,34	13,15	- 3,19	2,87	10,85
	II.	21. 50. 25,20	25,46	+ 0,26						
22. 13. 14. 56,9	II.	23. 19. 2,35	2,88	+ 0,53	N.	89. 31. 31,91	32,37	+ 0,46	2,55	11,81
23. 13. 54. 56,8	II.	0. 3. 5,42	5,57	+ 0,15	N.	84. 17. 40,79	41,97	+ 1,18	2,36	12,18
30. 19. 41. 39,0	II.	6. 18. 20,37	18,91	(-1,46)*	S.	65. 13. 9,66	11,93	+ 2,27	1,64	13,54
Sept. 12. 6. 45. 41,3	I.	18. 11. 30,74	31,12	+ 0,38	N.	114. 52. 25,18	25,14	- 0,04	3,26	9,16
14. 8. 25. 21,3	I.	19. 59. 20,31	20,18	- 0,13	S.	109. 49. 12,64	13,16	+ 0,52	3,13	9,67
15. 9. 10. 38,1	I.	20. 48. 41,02	40,78	- 0,24	S.	105. 54. 42,39	41,77	- 0,62	3,03	10,14
16. 9. 53. 25,5	I.	21. 35. 32,01	32,04	+ 0,03	S.	101. 23. 2,97	3,38	+ 0,41	2,92	10,66
19. 11. 54. 36,3	II.	23. 48. 52,13	52,57	+ 0,44	N.	86. 2. 2,41	1,60	- 0,81	2,42	12,07
20. 12. 35. 26,5	II.	0. 33. 45,56	46,30	+ 0,74	N.	80. 55. 40,41	39,99	- 0,42	2,23	12,37
21. 13. 17. 55,9	II.	1. 20. 18,51	19,18	+ 0,67	N.	76. 8. 20,43	17,88	- 2,55	2,03	12,58
27. 18. 28. 34,5	II.	6. 55. 27,41	28,28	+ 0,87	S.	66. 44. 27,47	30,66	+ 3,19	1,72	13,48
29. 20. 19. 48,6	II.	8. 54. 52,93	53,51	+ 0,58						
Oct. 13. 7. 51. 18,4	I.	21. 19. 31,82	31,78	- 0,04	S.	102. 48. 5,39	6,30	+ 0,91	2,97	10,54
19. 12. 0. 40,1	II.	1. 53. 13,50	14,47	+ 0,97	N.	73. 16. 12,13	10,37	- 1,76	1,91	12,74
20. 12. 48. 5,5	II.	2. 44. 43,24	44,32	+ 1,08	N.	69. 30. 54,08	51,16	- 2,92	1,75	12,85
21. 13. 38. 38,7	II.	3. 39. 21,23	22,17	+ 0,94	N.	66. 42. 53,89	52,69	- 1,20	1,62	12,92
26. 18. 11. 55,4	II.	8. 33. 5,60	6,64	+ 1,04	S.	73. 9. 0,80	3,70	+ 2,90	2,07	13,59
27. 19. 4. 2,0	II.	9. 29. 17,38	18,42	+ 1,04	S.	78. 19. 36,70	40,79	+ 4,09	2,34	13,59
Nov. 12. 7. 50. 9,8	I.	23. 16. 39,65	39,74	+ 0,09	S.	89. 33. 2,58	4,36	+ 1,78	2,57	11,82
17. 11. 32. 42,6	I.	3. 19. 31,82	32,43	+ 0,61	N.	67. 37. 53,68	52,49	- 1,19	1,67	12,97
18. 12. 26. 4,4	II.	4. 16. 58,60	59,53	+ 0,93	N.	65. 36. 31,91	30,24	- 1,67	1,58	13,07
25. 18. 40. 0,4	II.	10. 59. 31,92	32,97	+ 1,05	S.	88. 33. 33,90	40,31	+ 6,41	2,78	13,00
Dec. 8. 5. 5. 16,2	I.	22. 13. 49,43	49,04	- 0,39	S.	96. 35. 57,49	61,23	+ 3,74	2,81	11,25
14. 9. 22. 45,8	I.	2. 55. 40,67	40,71	+ 0,04	S.	68. 48. 39,76	43,43	+ 3,67	1,75	12,96
17. 12. 8. 17,9	I.	5. 53. 29,59	30,11	+ 0,52	S. & N.	65. 21. 36,11	36,52	+ 0,41	+ 1,62	13,58
27. 20. 56. 7,8	II.	15. 22. 11,52	12,78	+ 1,26						

* Probably an error of 2° in the observation.

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF JUPITER.						
Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Error of Tables.	N.P.D. from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d. h. m. s.	h. m. s.	s.	s.	° ' "	"	"
Mar. 4. 20. 20. 11,3	19. 11. 15,88	16,02	+ 0,14	112. 24. 49,55	52,72	+ 3,17
8. 20. 7. 19,6	19. 14. 8,26	8,38	+ 0,12	112. 20. 14,40	17,72	+ 3,32
18. 19. 34. 35,4	19. 20. 44,22	44,40	+ 0,18	112. 9. 4,73	8,52	+ 3,79
22. 19. 21. 10,4	19. 23. 7,38	7,74	+ 0,36	112. 4. 50,13	54,42	+ 4,29
25. 19. 11. 7,8	19. 24. 48,65	49,22	+ 0,57	112. 1. 49,19	51,12	+ 1,93
Apr. 4. 18. 36. 47,0	19. 29. 47,80	48,03	+ 0,23	111. 52. 34,81	37,91	+ 3,10
7. 18. 26. 16,1	19. 31. 4,80	5,11	+ 0,31	111. 50. 6,60	13,31	+ 6,71
8. 18. 22. 44,2	19. 31. 28,92	29,45	+ 0,53	111. 49. 25,85	27,61	+ 1,76
10. 18. 15. 39,1	19. 32. 15,68	16,07	+ 0,39	111. 47. 57,30	60,21	+ 2,91
11. 18. 12. 5,4	19. 32. 37,98	38,33	+ 0,35	111. 47. 16,30	18,51	+ 2,21
June 15. 13. 53. 32,4	19. 29. 38,69	39,31	+ 0,62	112. 3. 16,55	20,58	+ 4,03
16. 13. 49. 10,0	19. 29. 12,15	13,08	+ 0,93	112. 4. 21,13	25,98	+ 4,85
18. 13. 40. 24,8	19. 28. 18,62	19,13	+ 0,51	112. 6. 34,66	39,08	+ 4,42
20. 13. 31. 37,2	19. 27. 22,70	23,27	+ 0,57	112. 8. 52,48	54,88	+ 2,40
21. 13. 27. 12,7	19. 26. 54,02	54,68	+ 0,66	112. 10. 1,60	3,58	+ 1,98
27. 13. 0. 38,2	19. 23. 54,52	55,03	+ 0,51	112. 17. 4,44	5,48	+ 1,04
28. 12. 56. 11,3	19. 23. 23,44	23,91	+ 0,47	112. 18. 16,42	16,78	+ 0,36
29. 12. 51. 44,1	19. 22. 52,05	52,50	+ 0,45	112. 19. 25,51	28,18	+ 2,67
July 2. 12. 38. 21,0	19. 21. 16,39	16,80	+ 0,41	112. 23. 2,01	2,68	+ 0,67
5. 12. 24. 56,0	19. 19. 38,85	39,32	+ 0,47			
6. 12. 20. 27,4	19. 19. 6,09	6,55	+ 0,46	112. 27. 43,03	47,28	+ 4,25
12. 11. 53. 34,6	19. 15. 48,23	48,69	+ 0,46	112. 34. 42,41	44,78	+ 2,37
13. 11. 49. 5,7	19. 15. 15,15	15,74	+ 0,59			
14. 11. 44. 37,2	19. 14. 42,51	42,87	+ 0,36	112. 36. 55,16	59,58	+ 4,42
15. 11. 40. 8,7	19. 14. 9,78	10,09	+ 0,31	112. 38. 2,03	5,78	+ 3,75
18. 11. 26. 44,0	19. 12. 32,55	32,54	- 0,01	112. 41. 16,19	20,08	+ 3,09
20. 11. 17. 47,9	19. 11. 28,07	28,43	+ 0,36			
21. 11. 13. 20,2	19. 10. 56,24	56,71	+ 0,47	112. 44. 24,55	27,38	+ 2,83
23. 11. 4. 26,0	19. 9. 53,69	54,04	+ 0,35			
25. 10. 55. 32,9	19. 8. 52,29	52,54	+ 0,25	112. 48. 19,95	24,28	+ 4,33
29. 10. 37. 50,8	19. 6. 53,44	53,75	+ 0,31	112. 52. 3,02	5,29	+ 2,27
Aug. 1. 10. 24. 38,6	19. 5. 28,77	28,97	+ 0,20	112. 54. 36,71	39,79	+ 3,08
2. 10. 20. 15,4	19. 5. 1,40	1,64	+ 0,24	112. 55. 24,50	29,09	+ 4,59
3. 10. 15. 52,9	19. 4. 34,70	34,79	+ 0,09	112. 56. 13,48	17,19	+ 3,71
4. 10. 11. 30,5	19. 4. 8,16	8,46	+ 0,30	112. 56. 59,34	64,09	+ 4,75
5. 10. 7. 8,9	19. 3. 42,39	42,67	+ 0,28	112. 57. 46,18	49,89	+ 3,71
6. 10. 2. 47,7	19. 3. 17,07	17,43	+ 0,36	112. 58. 30,66	34,49	+ 3,83
8. 9. 54. 7,4	19. 2. 28,47	28,70	+ 0,23	112. 59. 56,65	59,89	+ 3,24
9. 9. 49. 48,2	19. 2. 5,13	5,23	+ 0,10	113. 0. 36,94	40,79	+ 3,85
11. 9. 41. 11,5	19. 1. 20,10	20,19	+ 0,09	113. 1. 54,39	58,89	+ 4,50
12. 9. 36. 53,9	19. 0. 58,32	58,63	+ 0,31	113. 2. 33,19	36,09	+ 2,90
13. 9. 32. 37,1	19. 0. 37,38	37,73	+ 0,35	113. 3. 9,10	12,09	+ 2,99
15. 9. 24. 5,8	18. 59. 57,82	57,98	+ 0,16	113. 4. 17,08	20,29	+ 3,21
17. 9. 15. 37,2	18. 59. 20,92	21,00	+ 0,08	113. 5. 19,70	23,59	+ 3,89
20. 9. 2. 59,3	18. 58. 30,60	30,91	+ 0,31	113. 6. 48,19	49,39	+ 1,20
23. 8. 50. 28,6	18. 57. 47,52	47,54	+ 0,02	113. 8. 0,34	4,29	+ 3,95
26. 8. 38. 4,4	18. 57. 10,96	11,06	+ 0,10	113. 9. 7,25	8,39	+ 1,14
Sept. 2. 8. 9. 35,8	18. 56. 13,56	13,74	+ 0,18	113. 10. 53,67	56,30	+ 2,63
3. 8. 5. 35,1	18. 56. 8,71	8,82	+ 0,11	113. 11. 4,92	7,00	+ 2,08
6. 7. 53. 37,7				113. 11. 26,62	32,00	+ 5,38
9. 7. 41. 47,6	18. 55. 56,61	56,73	+ 0,12	113. 11. 42,60	46,40	+ 3,80
12. 7. 30. 4,9	18. 56. 1,69	1,95	+ 0,26	113. 11. 47,65	50,00	+ 2,35
14. 7. 22. 20,8	18. 56. 9,45	9,60	+ 0,15	113. 11. 43,23	46,50	+ 3,27
15. 7. 18. 30,0	18. 56. 14,58	14,66	+ 0,08	113. 11. 41,27	43,10	+ 1,83
16. 7. 14. 40,0	18. 56. 20,44	20,55	+ 0,11	113. 11. 35,46	38,50	+ 3,04
19. 7. 3. 14,7	18. 56. 42,98	43,14	+ 0,16	113. 11. 14,85	17,70	+ 2,85
20. 6. 59. 28,0	18. 56. 52,13	52,29	+ 0,16	113. 11. 5,25	8,50	+ 3,25
21. 6. 55. 42,1	18. 57. 2,20	2,24	+ 0,04	113. 10. 56,10	58,10	+ 2,00
22. 6. 51. 56,7	18. 57. 12,75	13,00	+ 0,25	113. 10. 43,97	46,50	+ 2,53
26. 6. 37. 4,2				113. 9. 45,91	48,40	+ 2,49
29. 6. 26. 2,8	18. 58. 50,51	50,49	- 0,02	113. 8. 49,20	52,21	+ 3,01

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF JUPITER, *continued*.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Error of Tables.	N.P.D. from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d. h. m. s.	h. m. s.	s.	s.	° ' "	"	"
Oct. 1. 6.18.45,6	18.59.25,15	25,36	+0,21	113. 8. 4,56	8,61	+4,05
5. 6. 4.20,9	19. 0.44,32	44,26	-0,06	113. 6.24,20	26,31	+2,11
8. 5.53.39,9	19. 1.51,25	51,24	-0,01	113. 4.54,53	56,21	+1,68
10. 5.46.36,6	19. 2.39,84	39,51	-0,33			
12. 5.39.35,4				113. 2.37,87	38,01	+0,14

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF SATURN.

June 7.13.51.17,0	18.55.50,45	49,72	-0,73	112.16. 1,02	17,49	+16,47
8.13.47. 5,2	18.55.34,51	33,70	-0,81	112.16.26,87	42,39	+15,52
9.13.42.52,7	18.55.17,91	17,45	-0,46	112.16.52,07	67,49	+15,42
13.13.26. 2,3	18.54.10,93	10,42	-0,51	112.18.35,28	50,29	+15,01
15.13.17.35,9	18.53.36,26	35,80	-0,46	112.19.27,48	42,89	+15,41
18.13. 4.55,3	18.52.43,26	42,65	-0,61	112.20.45,88	62,89	+17,01
20.12.56.27,4	18.52. 7,12	6,52	-0,60	112.21.41,57	56,79	+15,22
21.12.52.13,2	18.51.48,76	48,28	-0,48	112.22. 7,39	23,79	+16,40
24.12.39.30,4	18.50.53,53	52,94	-0,59	112.23.31,93	45,19	+13,26
27.12.26.46,6	18.49.57,28	56,86	-0,42	112.24.51,99	66,89	+14,90
28.12.22.31,9	18.49.38,43	38,04	-0,39	112.25.20,36	34,19	+13,83
29.12.18.17,3	18.49.19,70	19,17	-0,53	112.25.46,56	61,49	+14,93
July 2.12. 5.32,8	18.48.22,80	22,35	-0,45	112.27. 7,83	23,09	+15,26
5.11.52.48,2	18.47.25,80	25,44	-0,36			
6.11.48.33,3	18.47. 6,81	6,50	-0,31	112.28.53,43	70,89	+17,46
11.11.27.20,2	18.45.33,01	32,45	-0,56	112.31. 7,64	22,89	+15,25
12.11.23. 5,9	18.45.14,49	13,84	-0,65			
13.11.18.51,3	18.44.55,79	55,31	-0,48			
14.11.14.37,2	18.44.37,55	36,88	-0,67	112.32.22,81	40,29	+17,48
15.11.10.22,9	18.44.19,09	18,57	-0,52	112.32.49,80	65,69	+15,89
20.10.49.14,0	18.42.49,53	48,95	-0,58			
21.10.45. 0,1				112.35.19,52	33,49	+13,97
23.10.36.34,6	18.41.57,73	57,03	-0,70			
25.10.28. 8,9	18.41.23,76	23,32	-0,44	112.36.50,07	67,09	+17,02
29.10.11.20,5	18.40.18,78	18,38	-0,40	112.38.20,73	36,59	+15,86
Aug. 1. 9.58.48,2	18.39.32,45	32,09	-0,36	112.39.25,62	40,79	+15,17
2. 9.54.35,4				112.39.46,48	61,59	+15,11
3. 9.50.25,5	18.39. 3,14	2,50	-0,64	112.40. 6,66	22,09	+15,43
4. 9.46.15,1	18.38.48,64	48,11	-0,53	112.40.27,18	42,29	+15,11
5. 9.42. 5,0	18.38.34,39	33,99	-0,40	112.40.46,23	62,09	+15,86
6. 9.37.55,3	18.38.20,52	20,16	-0,36	112.41. 6,28	21,69	+15,41
8. 9.29.36,8	18.37.53,80	53,38	-0,42	112.41.46,25	59,99	+13,74
9. 9.25.27,9	18.37.40,79	40,45	-0,34	112.42. 3,23	18,69	+15,46
11. 9.17.11,4	18.37.16,01	15,53	-0,48	112.42.39,25	55,00	+15,75
12. 9.13. 3,4	18.37. 3,94	3,56	-0,38	112.42.57,32	72,70	+15,38
13. 9. 8.55,9	18.36.52,26	51,92	-0,34	112.43.13,05	30,00	+16,95
16. 8.56.35,5	18.36.19,50	19,04	-0,46	112.44. 3,91	20,00	+16,09
17. 8.52.29,4	18.36. 9,35	8,78	-0,57	112.44.20,46	36,00	+15,54
23. 8.28. 0,1	18.35.15,30	14,77	-0,53	112.45.50,05	65,10	+15,05
24. 8.23.56,6	18.35. 7,70	7,06	-0,64	112.46. 5,01	18,80	+13,79
26. 8.15.50,3	18.34.53,22	52,80	-0,42	112.46.33,06	45,20	+12,14
31. 7.55.41,7				112.47.30,58	45,20	+14,62
Sept. 2. 7.47.41,6	18.34.15,70	15,35	-0,35	112.47.52,97	66,90	+13,93
3. 7.43.42,0	18.34.11,99	11,62	-0,37			
6. 7.31.45,6	18.34. 3,32	2,91	-0,41	112.48.32,92	46,20	+13,28
9. 7.19.52,8	18.33.58,26	57,98	-0,28	112.48.56,02	71,90	+15,88
12. 7. 8. 4,1	18.33.57,26	56,84	-0,42	112.49.20,37	34,30	+13,93
14. 7. 0.13,7	18.33.58,66	58,20	-0,46	112.49.33,16	47,50	+14,34
15. 6.56.19,0	18.33.59,89	59,51	-0,38	112.49.40,71	53,50	+12,79
16. 6.52.24,4				112.49.44,75	59,20	+14,45
19. 6.40.44,9	18.34. 9,45	9,00	-0,45	112.50. 0,95	14,20	+13,25
20. 6.36.52,3	18.34.12,80	12,43	-0,37	112.50. 4,43	18,50	+14,07
26. 6.13.46,3	18.34.42,32	41,80	-0,52	112.50.22,48	36,50	+14,02
Oct. 1. 5.54.42,6	18.35.18,25	17,76	-0,49	112.50.27,22	41,10	+13,88
5. 5.39.35,2	18.35.54,56	53,92	-0,64	112.50.24,69	37,50	+12,81

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF URANUS.

Greenwich Mean Solar Time of Transit.	R.A. from Observation.	Seconds of Tabular R.A.	Error of Tables.	N.P.D. from Observation.	Seconds of Tabular N.P.D.	Error of Tables.
d. h. m. s.	h. m. s.	s.	s.	° ' "	"	"
Aug. 23. 13. 43. 20,9	23. 51. 27,97	34,56	+ 6,59	91. 46. 68,25	35,59	- 32,66
26. 13. 31. 10,6	23. 51. 5,25	11,62	+ 6,37	91. 49. 40,72	7,89	- 32,83
Sept. 2. 13. 2. 42,8	23. 50. 8,71	15,24	+ 6,53	91. 55. 51,66	19,88	- 31,78
3. 12. 58. 38,5	23. 50. 0,30	6,91	+ 6,61	91. 56. 47,71	14,58	- 33,13
8. 12. 38. 16,8	23. 49. 17,96	24,47	+ 6,51	92. 0. 84,77	52,78	- 31,99
9. 12. 34. 12,2	23. 49. 9,31	15,84	+ 6,53	92. 1. 82,35	49,08	- 33,27
10. 12. 30. 7,5	23. 49. 0,42	7,19	+ 6,77	92. 2. 77,88	45,58	- 32,30
12. 12. 21. 58,4	23. 48. 43,15	49,78	+ 6,63	92. 4. 71,83	39,18	- 32,65
14. 12. 13. 49,2	23. 48. 25,73	32,27	+ 6,54	92. 6. 63,18	33,18	- 30,00
15. 12. 9. 44,5	23. 48. 16,91	23,49	+ 6,58	92. 7. 59,91	30,28	- 29,63
16. 12. 5. 39,8	23. 48. 8,03	14,70	+ 6,67	92. 8. 58,81	27,38	- 31,43
19. 11. 53. 32,3				92. 11. 50,27	18,78	- 31,49
20. 11. 49. 21,1	23. 47. 32,86	39,43	+ 6,57	92. 12. 48,18	15,88	- 32,30
21. 11. 45. 16,3	23. 47. 23,99	30,62	+ 6,63	92. 13. 45,22	12,88	- 32,34
24. 11. 33. 2,1	23. 46. 57,58	64,20	+ 6,62	92. 16. 35,12	3,18	- 31,94
26. 11. 24. 52,9	23. 46. 40,05	46,68	+ 6,63	92. 17. 88,58	55,98	- 32,60
Oct. 3. 10. 56. 21,3	23. 45. 39,57	46,32	+ 6,75			
4. 10. 52. 16,9	23. 45. 31,07	37,87	+ 6,80	92. 25. 48,82	16,99	- 31,83
6. 10. 44. 8,7	23. 45. 14,60	21,14	+ 6,54	92. 27. 35,25	3,59	- 31,66
10. 10. 27. 52,4	23. 44. 41,83	48,47	+ 6,64			
12. 10. 19. 51,3				92. 32. 43,63	11,79	- 31,84
19. 9. 51. 20,8	23. 43. 33,24	39,76	+ 6,52	92. 37. 75,81	44,29	- 31,52
21. 9. 43. 14,7	23. 43. 18,93	25,55	+ 6,62	92. 39. 44,25	12,99	- 31,26
24. 9. 31. 6,5	23. 42. 58,57	65,10	+ 6,53	92. 41. 51,98	20,49	- 31,49
26. 9. 23. 1,8	23. 42. 45,44	52,06	+ 6,62	92. 42. 71,56	41,39	- 30,17
28. 9. 14. 57,5	23. 42. 33,00	39,52	+ 6,52	92. 43. 90,57	58,99	- 31,58
29. 9. 10. 55,6	23. 42. 26,93	33,45	+ 6,52	92. 44. 66,74	36,39	- 30,35
31. 9. 2. 52,0	23. 42. 15,18	21,71	+ 6,53	92. 45. 80,53	48,59	- 31,94
Nov. 3. 8. 50. 47,7	23. 41. 58,73	65,16	+ 6,43	92. 47. 59,41	29,69	- 29,72
4. 8. 46. 46,7	23. 41. 53,46	59,94	+ 6,48	92. 48. 33,40	1,39	- 32,01
12. 8. 14. 43,3	23. 41. 17,17	23,70	+ 6,53	92. 51. 68,18	37,89	- 30,29
17. 7. 54. 46,6	23. 40. 59,98	66,37	+ 6,39	92. 53. 48,74	18,10	- 30,64
24. 7. 26. 58,3	23. 40. 43,05	49,40	+ 6,35	92. 54. 81,78	50,30	- 31,48
26. 7. 19. 3,3	23. 40. 39,80	46,16	+ 6,36	92. 55. 37,65	6,10	- 31,55
30. 7. 3. 15,4	23. 40. 35,61	41,90	+ 6,29	92. 55. 52,45	23,20	- 29,25
Dec. 3. 6. 51. 26,5	23. 40. 34,43	40,67	+ 6,24	92. 55. 52,93	23,10	- 29,83
8. 6. 31. 48,8	23. 40. 36,31	42,40	+ 6,09	92. 54. 87,70	58,38	- 29,32
13. 6. 12. 15,5	23. 40. 42,57	48,87	+ 6,30	92. 54. 33,39	3,20	- 30,19
14. 6. 8. 21,5	23. 40. 44,45	50,72	+ 6,27	92. 53. 79,58	48,50	- 31,08
17. 5. 56. 40,3	23. 40. 51,06	57,41	+ 6,35	92. 52. 86,88	57,01	- 29,87
19. 5. 48. 54,0	23. 40. 56,55	62,81	+ 6,26			
22. 5. 37. 15,8	23. 41. 6,15	12,29	+ 6,14	92. 51. 37,94	7,51	- 30,43
24. 5. 29. 31,2	23. 41. 13,35	19,54	+ 6,19	92. 50. 45,34	15,31	- 30,03
28. 5. 14. 4,2	23. 41. 30,09	36,20	+ 6,11	92. 48. 46,93	17,01	- 29,92

DETERMINATION OF THE POSITION OF THE ECLIPTIC, AND OF THE MEAN ERROR OF
THE ASSUMED RIGHT ASCENSIONS OF THE FUNDAMENTAL STARS, FROM THE
CIRCLE OBSERVATIONS OF THE SUN IN THE YEAR 1842.

The Observations (exclusive of those of single limbs) have been divided into groups, which, by the rejection of one observation, viz. that of April 23, are made to contain alternately twelve and eleven observations. The table below exhibits the means of the days of observation, and the mean values (α) of the Tabular Errors in North Polar Distance, of the several groups, derived from the columns in pages 242—244, together with the Sun's Longitude (λ) and North Polar Distance (Δ) at the mean noons of the respective days.

Limiting Days of Observation of each group.	Mean Day.	Mean of the Tabular Errors in N.P.D.	Number of Observations.	Sun's Longitude at mean Noon of mean Day.	Sun's N.P.D. at mean Noon of mean Day.
Jan. 17.....Feb. 16	Feb. 4	+1,33	12	315.20."6	106.15."8
Feb. 19.....Mar. 18	Mar. 6	+0,81	11	345.32.48	95.42.10
Mar. 19.....Apr. 16	Apr. 3	+1,09	12	13.19.32	84.44.6
Apr. 19.....May 2	Apr. 25	+1,08	11	34.50.44	76.51.6
May 3.....June 3	May 22	+0,24	12	60.55.49	69.38.13
June 4.....July 12	June 14	+0,76	11	82.56.57	66.43.38
July 14.....Aug. 9	July 27	+0,09	12	123.58.7	70.43.13
Aug. 10.....Aug. 24	Aug. 17	-0,47	11	144.6.31	76.30.10
Aug. 26.....Sept. 26	Sept. 12	-0,51	12	169.16.38	85.45.8
Sept. 30.....Oct. 21	Oct. 9	-1,04	11	195.46.52	96.12.58
Oct. 26.....Nov. 24	Nov. 6	+0,04	12	223.41.49	105.57.52
Nov. 25.....Dec. 28	Dec. 14	+0,73	11	262.9.19	113.13.40

Formulae of Calculation.

$$\alpha + m \cos \lambda \operatorname{cosec} \Delta + n \sin \lambda \operatorname{cosec} \Delta + p = 0 \dots (1).$$

And I being the obliquity of the Ecliptic,

$$\delta \lambda = m \times \operatorname{cosec} I \dots (2). \quad \delta I = n \times \sec I \dots (3). \quad \delta \Delta = \alpha + p \dots (4).$$

The following equations were deduced from the formula (1) by means of the Table above, and each equation is multiplied by the respective number of observations.

First Quarter	{	Feb. 4..... + 15,96 + 8,8900 m - 8,7866 n + 12 p = 0.
		Mar. 6..... + 8,91 + 10,7048 m - 2,7592 n + 11 p = 0.
		Apr. 3..... + 13,08 + 11,7264 m + 2,7775 n + 12 p = 0.
Second Quarter	{	Apr. 25..... + 11,88 + 9,2707 m + 6,4542 n + 11 p = 0.
		May 22..... + 2,88 + 6,2191 m + 11,1875 n + 12 p = 0.
		June 14..... + 8,36 + 1,4665 m + 11,8837 n + 11 p = 0.
Third Quarter	{	July 27..... + 1,08 - 7,1032 m + 10,5434 n + 12 p = 0.
		Aug. 17..... - 5,17 - 9,1645 m + 6,6319 n + 11 p = 0.
		Sept. 12..... - 6,12 - 11,8229 m + 2,2388 n + 12 p = 0.
Fourth Quarter	{	Oct. 9..... - 11,44 - 10,6480 m - 3,0093 n + 11 p = 0.
		Nov. 6..... + 0,48 - 9,0241 m - 8,6227 n + 12 p = 0.
		Dec. 14..... + 8,03 - 1,6338 m - 11,8583 n + 11 p = 0.

From the above, new equations are formed by adding and subtracting as indicated below :

$$\begin{aligned} &\text{First Quarter} + \text{Second} + \text{Third} + \text{Fourth} \\ &+ 47'',93 - 1,1190m + 16,6809n + 138p = 0. \end{aligned}$$

$$\begin{aligned} &\text{First Quarter} + \text{Second} - \text{Third} - \text{Fourth} \\ &+ 74'',21 + 97,6740m + 24,8333n = 0. \end{aligned}$$

$$\begin{aligned} &\text{First Quarter} - \text{Second} - \text{Third} + \text{Fourth} \\ &+ 22'',11 + 21,1496m - 81,1981n = 0. \end{aligned}$$

The solution of these equations gives,

$$m = - 0'',762; \quad n = + 0'',074; \quad p = - 0'',362.$$

Hence by equation (2), $\delta\lambda = - 0'',762 \times \text{cosec } 23^\circ.28' = - 1'',914$. Consequently the Sun's longitude as calculated in the Nautical Almanac for 1842, is *less* than the longitude determined by observation, by the mean quantity $1'',914$. The mean error of R.A. for the year will be found by calculation to be $- 1'',894$.

Hence the mean error of the Tabular Right Ascension (in time) $= - 0^s,126$.

By equation (3), $\delta I = + 0'',074 \times \sec 23^\circ.28' = + 0'',081$. Hence the obliquity assumed in the Nautical Almanac is *greater* than that by observation by $0'',081$.

The value of p shews that within the Tropics the North Polar Distances, determined by the Circle observations and calculations contained in this Volume, should be *increased* by the mean quantity $0'',362$.

The mean Error of the Solar Tables in Right Ascension for the Year, as derived from 135 Tabular errors in pages 242—244, (observations of single limbs being excluded) will be found to be $- 0^s,067$.

Hence the assumed R.A. of the fundamental stars are too great by $- 0^s,126 + 0^s,067$, that is, too small by $0^s,059$.

COMPARISONS OF CLOCKS

AND

CHRONOMETERS.

1842.

* * THE letter *H* is an abbreviation for Hardy, the Transit Clock: *G* for Graham, the Clock in the Dome, commonly used with the Five-feet Equatoreal. *U* and *X* are Sidereal Chronometers, and *W* a Solar Chronometer, each beating half-seconds.

Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.	Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.
		<i>h.</i> <i>m.</i> <i>s.</i>		<i>h.</i> <i>m.</i> <i>s.</i>			<i>h.</i> <i>m.</i> <i>s.</i>		<i>h.</i> <i>m.</i> <i>s.</i>
Jan. 23	G.	3.48.17	W.	7.37.34,9	Apr. 5	H.	9.41.46	X.	9.41.25,5
	G.	3.48.26	W.	7.37.43,8		H.	9.42.10	X.	9.41.49,5
	H.	3.50.46	W.	7.39.33,5	Apr. 6	H.	9.16.18	U.	9.17.5,0
	H.	3.50.55	W.	7.39.42,5		H.	9.16.28	U.	9.17.15,0
Mar. 5	G.	6.55.23	U.	6.53.52,8		G.	9.20.6	U.	9.19.4,5
	G.	6.55.32	U.	6.54.1,8		G.	9.20.12	U.	9.19.10,5
	H.	6.54.41	U.	6.55.27,0		H.	9.38.49	X.	9.38.26,0
	H.	6.54.50	U.	6.55.36,0		H.	9.39.33	X.	9.39.10,0
	H.	7.26.12	X.	7.26.5,5	Apr. 8	H.	9.25.58	U.	9.26.45,8
	H.	7.27.22	X.	7.27.15,5		H.	9.26.6	U.	9.26.53,8
Mar. 6	G.	7.1.51	U.	7.0.23,0		G.	9.29.8	U.	9.27.52,0
	G.	7.1.59	U.	7.0.31,0		G.	9.29.58	U.	9.28.42,0
	H.	7.1.33	U.	7.2.30,0	Apr. 9	H.	9.46.19	X.	9.45.55,2
	H.	7.1.41	U.	7.2.38,0		H.	9.47.4	X.	9.46.40,2
	H.	7.33.13,2	X.	7.33.5,5		H.	9.21.52	U.	9.22.38,0
	H.	7.33.58,2	X.	7.33.50,5		H.	9.21.59	U.	9.22.45,0
Mar. 10	H.	7.23.43	X.	7.23.40,0	June 13	G.	9.25.25	U.	9.24.5,4
	H.	7.23.56	X.	7.23.53,0		G.	9.25.35	U.	9.24.15,4
Mar. 18	H.	8.17.43	X.	8.17.40,0		H.	9.46.11,2	X.	9.45.45,0
	H.	8.18.18	X.	8.18.15,0		H.	9.47.1,2	X.	9.46.35,0
Mar. 22	G.	7.50.54	W.	7.51.4,5	June 15	H.	12.46.10,2	X.	12.48.0,5
	G.	7.51.3	W.	7.51.13,5		H.	12.47.10,3	X.	12.49.0,5
	H.	7.55.56	W.	7.56.27,5		H.	13.44.57	W.	8.18.4,0
	H.	7.56.3	W.	7.56.34,5		H.	13.45.3	W.	8.18.10,0
Mar. 23	H.	8.33.38	X.	8.33.30,0		G.	13.47.35	W.	8.19.12,5
	H.	8.33.49	X.	8.33.41,0		G.	13.47.43	W.	8.19.20,5
Mar. 28	H.	9.16.23	X.	9.16.15,3		H.	13.51.26	X.	13.53.16,2
	H.	9.17.34	X.	9.17.26,3		H.	13.52.11	X.	13.54.1,2
Mar. 29	H.	9.8.10	X.	9.8.1,5	June 26	H.	16.53.31	X.	16.55.21,5
	H.	9.9.4	X.	9.8.55,5		H.	16.53.46	X.	16.55.36,5
Mar. 30	H.	8.52.46	U.	8.53.20,0		G.	16.55.28	W.	11.18.21,0
	G.	8.54.58	U.	8.54.24,5		G.	16.56.18	W.	11.19.11,0
	H.	9.1.30	X.	9.1.20,6		H.	16.59.9	W.	11.23.45,5
	H.	9.2.15	X.	9.2.5,6		H.	17.0.9	W.	11.24.45,5
Apr. 2	H.	9.24.11	U.	9.24.40,0	July 30	G.	21.40.26	W.	15.17.15,0
	G.	9.26.51	U.	9.25.56,0		G.	21.40.34	W.	15.17.23,0
	H.	9.45.30,3	X.	9.45.19,5		H.	21.39.24	W.	15.19.30,5
	H.	9.46.8,3	X.	9.45.57,5		H.	21.39.37	W.	15.19.43,5
Apr. 3	G.	8.32.55	X.	8.31.10,5	Sept. 12	G.	20.13.22	X.	20.11.5,5
	G.	8.33.18	X.	8.31.33,5		G.	20.14.32	X.	20.12.15,5
	H.	8.37.32	X.	8.37.17,5		H.	20.14.14	X.	20.15.26,6
	H.	8.38.4	X.	8.37.49,5		H.	20.15.8	X.	20.16.20,6
Apr. 4	H.	8.50.2	U.	8.50.43,5	Sept. 26	G.	21.34.18	X.	21.34.24,5
	H.	8.50.10	U.	8.50.51,5		G.	21.34.48	X.	21.34.54,5
	G.	8.52.59	U.	8.52.4,5		H.	21.36.59	X.	21.37.3,6
	G.	8.53.9	U.	8.52.14,6		H.	21.37.23	X.	21.37.27,6
	H.	9.39.28,3	X.	9.39.10,5	Nov. 12	G.	22.12.7	U.	22.12.32,6
	H.	9.40.8,3	X.	9.39.50,5		G.	22.12.20	U.	22.12.45,6
Apr. 5	H.	9.31.1	X.	9.30.40,5		H.	22.14.52	U.	22.15.0,5
	H.	9.31.41	X.	9.31.20,5		H.	22.15.16	U.	22.15.24,5
	G.	9.42.3	X.	9.40.0,3		H.	23.8.7	W.	10.46.45,0
	G.	9.42.13	X.	9.40.10,3		H.	23.8.57	W.	10.47.35,0
						G.	23.10.21	W.	10.49.15,5
						G.	23.11.3	W.	10.49.57,5
						H.	0.55.21	U.	0.55.45,1

Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.	Day of Comparison.	Clock.	Clock Time.	Chron.	Chronometer Time.
		<i>h. m. s.</i>		<i>h. m. s.</i>			<i>h. m. s.</i>		<i>h. m. s.</i>
Nov. 12	H.	0.55.32	U.	0.55.56,1	Nov. 25	G.	22.40.20	X.	22.38.53,6
	G.	1.4.40,1	X.	0.54.35,5		G.	22.40.46	X.	22.39.19,6
	G.	1.5.31,1*	X.	0.55.26,5		H.	22.43.20	X.	22.42.29,6
	H.	0.58.46	X.	0.58.21,1		H.	22.43.32	X.	22.42.41,6
	H.	0.59.35	X.	0.59.10,1	Nov. 26	H.	22.7.15	U.	22.10.0,5
	G.	1.19.40,1	X.	1.19.35,0		H.	22.7.40	U.	22.10.25,5
	G.	1.20.51,1	X.	1.20.46,0		G.	22.10.1	U.	22.11.57,0
	H.	1.22.40	U.	1.23.4,6		G.	22.10.17	U.	22.12.13,0
	H.	1.23.0	U.	1.23.24,7	Dec. 14	G.	22.25.48	U.	22.25.30,5
	G.	1.51.32	X.	1.51.26,7		H.	22.27.12	U.	22.27.14,0
	G.	1.52.22	X.	1.52.16,7		H.	22.27.29	U.	22.27.31,0
	H.	1.59.30	X.	1.59.5,0	Dec. 19	H.	12.15.12	X.	12.14.11,0
	H.	2.0.15	X.	1.59.50,0		H.	12.16.6	X.	12.15.5,0
Nov. 24	G.	22.28.30	U.	22.30.29,5		G.	12.29.16,2	X.	12.26.29,0
	G.	22.28.51	U.	22.30.50,5		G.	12.30.2,2	X.	12.27.15,0
	H.	22.31.45	U.	22.34.8,2					
	H.	22.32.10	U.	22.34.33,2					

* After this G was put backward 10^m.

DIFFERENCES
OF
RIGHT ASCENSION AND NORTH POLAR DISTANCE
OF
ENCKE'S COMET
AND ADJACENT STARS,
OBSERVED WITH THE NORTHUMBERLAND EQUATOREAL,
AND THE FIVE-FEET EQUATOREAL;
AND
CALCULATION OF GEOCENTRIC RIGHT ASCENSIONS AND
NORTH POLAR DISTANCES OF THE COMET.

1842.

Day of Observation.	Reference Number.	Object.	Time of Observation by Chronometer X.	Corresponding Sidereal Time.	Reading of Hour Circle Microscope-micrometer.		Difference of R.A. uncorrected.	Approximate Hour angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>r.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
Mar. 10	1 2	A.S.C. 93 Comet	7.14.13,2 7.18.10,0	7.14.36,97 7.18.33,77			+ 3.56,80	6.26.44	76.54.13 77.0.31
Mar. 18	3 4	Comet η Piscium	7.10.14,0 7.15.48,0	7.10.46,58 7.16.20,58	9.40 17.20	1,888 3,805	- 7.47,58	5.55.30 5.53.18	75.8.2 75.28.9
	5 6	Comet η Piscium	7.35.39,5 7.43.22,5	7.36.12,10 7.43.55,10			- 7.43.00	6.20.52	75.7.48 75.28.9
Mar. 23	7 8	105 Piscium Comet	7.20.36,5 7.21.5,0	7.21.18,79 7.21.47,29			+ 0.28,50	5.50.8	74.23.47 74.1.59
	9 10	105 Piscium Comet	7.22.14,7 7.22.42,8	7.22.56,99 7.23.25,09			+ 0.28,10	5.51.47	74.23.47 74.1.58
	11 12	105 Piscium Comet	7.23.42,3 7.24.10,8	7.24.24,60 7.24.53,10			+ 0.28,50	5.53.14	74.23.47 74.1.58
	13 14	105 Piscium Comet	7.25.1,7 7.25.29,5	7.25.44,00 7.26.11,80			+ 0.27,80	5.54.34	74.23.47 74.1.57
	15 16	105 Piscium Comet	7.26.23,8 7.26.52,2	7.27.6,10 7.27.34,50			+ 0.28,40	5.55.56	74.23.47 74.1.56
	17 18	105 Piscium Comet	7.35.23,0 7.35.52,0	7.36.5,30 7.36.34,30			+ 0.29,00	6.4.55	74.23.47 74.1.52
	19 20	105 Piscium Comet	7.36.39,8 7.37.9,2	7.37.22,10 7.37.51,50			+ 0.29,40	6.6.12	74.23.47 74.1.51
	21 22	105 Piscium Comet	7.37.55,7 7.38.25,5	7.38.38,00 7.39.7,80			+ 0.29,80	6.7.28	74.23.47 74.1.50
	23 24	105 Piscium Comet	7.39.14,6 7.39.44,5	7.39.56,90 7.40.26,80			+ 0.29,90	6.8.46	74.23.47 74.1.50
Mar. 28	25 26	ι Arietis Comet	8.36.20,8 8.37.2,4	8.37.7,54 8.37.49,14			+ 0.41,60	6.48.23	72.57.17 73.8.13
	27 28	ι Arietis Comet	8.38.2,8 8.38.45,5	8.38.50,54 8.39.33,24			+ 0.42,70	6.50.46	72.57.17 73.8.12
	29 30	ι Arietis Comet	8.39.54,0 8.40.37,2	8.40.41,74 8.41.24,94			+ 0.43,20	6.51.58	72.57.17 73.8.12
	31 32 33	ι Arietis Comet ι Arietis	8.43.18,0 8.45.37,0 8.48.11,0	8.44.5,75 8.46.24,76 8.48.58,76	44.0 45.0 44.20	4,360 0,833 0,360	+ 0.46,06 + 0.41,87	6.55.22 6.56.57 7.0.15	72.57.17 73.8.10 72.57.17
	34 35	ι Arietis Comet	8.51.39,0 8.52.23,4	8.52.26,76 8.53.11,16			+ 0.44,40	7.3.43	72.57.17 73.8.7
	36 37	ι Arietis Comet	8.53.17,6 8.54.2,5	8.54.5,37 8.54.50,27			+ 0.44,90	7.5.21	72.57.17 73.8.7

One revolution of the Hour-Circle Microscope-micrometer = $3^s,951$.

N^{os}. 1 and 2. Transits at a straight edge across the middle of the field, the instrument being fixed. Power, 100. Comet pretty bright. It is to be understood that whenever the Hour-Circle Microscope is not read, the observations are transits taken as in this instance.

N^{os}. 3 and 4. Taken with the Hour-Circle in motion by the clock. After these two observations the clock stopped and the rate of motion of the Hour-Circle was consequently not determined. It had been previously regulated to sidereal time.

Correction for Refraction in R.A.	Correction for rate of Hour Circle.	Correction for Parallax in R.A.	Corrected Difference of R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	s.	s.	m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
-20,51 -20,73		+0,23	+3.56,81	0.47.52,61	0.51.49,42	8.5.50,5	0.51.51,82	+2,40	G.
-11,22 -11,14	0,00	+0,26	-7.47,40	1.23.2,63	1.15.15,23	7.26.37,3	1.15.15,47	+0,24	C.
-15,63 -16,05		+0,25	-7.42,33	.....	1.15.20,30	7.51.58,7	1.15.18,81	-1,49	C.
-10,53 -10,35		+0,27	+0.28,95	1.31.10,49	1.31.39,44	7.17.56,7	1.31.39,08	-0,36	G.
-10,72 -10,53		+0,27	+0.28,56	.....	1.31.39,05	7.19.34,2	1.31.39,31	+0,26	G.
-10,89 -10,69		+0,27	+0.28,97	.....	1.31.39,46	7.21.2,0	1.31.39,53	+0,07	G.
-11,04 -10,85		+0,27	+0.28,26	.....	1.31.38,75	7.22.20,5	1.31.39,72	+0,97	G.
-11,21 -11,01		+0,27	+0.28,87	.....	1.31.39,36	7.23.42,9	1.31.39,91	+0,55	G.
-12,43 -12,17		+0,27	+0.29,53	.....	1.31.40,02	7.32.41,3	1.31.41,18	+1,16	G.
-12,62 -12,36		+0,27	+0.29,93	.....	1.31.40,42	7.33.58,3	1.31.41,37	+0,95	G.
-12,82 -12,55		+0,27	+0.30,34	.....	1.31.40,83	7.35.14,4	1.31.41,55	+0,72	G.
-13,03 -12,75		+0,27	+0.30,45	1.31.10,49	1.31.40,94	7.36.33,1	1.31.41,74	+0,80	G.
-20,07 -20,45		+0,29	+0.41,51	1.48.44,23	1.49.25,74	8.14.6,5	1.49.26,01	+0,27	G.
-20,72 -21,11		+0,29	+0.42,60	.....	1.49.26,83	8.15.50,4	1.49.26,27	-0,56	G.
-21,46 -21,88		+0,29	+0.43,07	.....	1.49.27,30	8.17.41,8	1.49.26,55	-0,75	G.
-22,94 -24,23 -25,47	-0,85 -1,66	+0,29	+0.44,21	.....	1.49.28,44	8.22.40,7	1.49.27,30	-1,14	G.
-27,57 -28,24		+0,29	+0.44,02	.....	1.49.28,25	8.29.26,0	1.49.28,32	+0,07	G.
-28,63 -29,36		+0,29	+0.44,46	.....	1.49.28,69	8.31.4,9	1.49.28,57	-0,12	G.

N^{os.} 5 and 6. Difficult observations, the sky being hazy, and the comet faint and very low.

N^{os.} 7—24. All these are satisfactory. The comet was quite bright and easily observed.

N^{os.} 27 and 28. This set thought to be better than the preceding.

N^{o.} 32. The reading for the division of the Hour-Circle bisected by the micrometer was set down 45^m.40^s by mistake.

N^{os.} 34 and 35. Considered good.

Day of Observation.	Reference Number.	Object.	Time of Observation by Chronometer X.	Corresponding Sidereal Time.	Reading of Hour-Circle Microscope-micrometer.		Difference of R.A. uncorrected.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>r.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
Mar. 29	38	♈ Arietis	7.40.37,0	7.41.25,51	44.40	2,655	+4.13,02	5.52.41	72.57.17
	39	Comet	7.47.29,0	7.48.17,53	49.0	0,888	+4.10,35	5.55.22	73.0.12
	40	♈ Arietis	7.51.13,0	7.52.1,53	44.40	3,330	+4.13,31	6.3.17	72.57.17
	41	Comet	7.55.15,0	7.56.3,53	49.0	1,638	+4.11,34	6.3.7	73.0.10
	42	♈ Arietis	7.58.36,0	7.59.24,54	44.40	3,830	+4.14,82	6.10.40	72.57.17
	43	Comet	8.3.3,0	8.3.51,55	49.0	2,518		6.10.54	73.0.7
	44	♈ Arietis	8.7.45,0	8.8.33,6	44.40	2,660		6.19.48	72.57.17
	45	♈ Arietis	8.11.10,0	8.11.58,6	44.40	3,038		6.23.14	72.57.17
Mar. 30	46	♈ Arietis	8.31.26,0	8.32.16,7	51.0	1,150	+1.39,11	6.37.13	72.30.26
	47	Comet	8.36.38,0	8.37.28,7	52.40	0,923	+1.31,61	6.38.17	72.53.2
	48	♈ Arietis	8.42.25,0	8.43.15,7	51.0	3,047		6.48.12	72.30.26
Apr. 2	49	Comet	8.55.50,0	8.56.45,1	63.20	4,178	+8.14,15	6.49.18	72.42.23
	50	Piazzi I. 257	8.59.53,0	9.0.48,1	55.20	0,597	+8.19,71	7.1.41	72.43.29
	51	Comet	9.2.49,0	9.3.44,1	63.40	0,525	+8.15,02	6.56.17	72.42.23
	52	Piazzi I. 257	9.7.52,0	9.8.47,1	55.20	1,785		7.9.40	72.43.29
Apr. 4	53	♊ Arietis	8.1.0,0	8.2.3,2	17.20	4,042	-7.53,05	5.39.54	72.59.48
	54	Comet	8.16.33,0	8.17.36,2	9.40	0,740	-7.53,79	6.3.26	72.46.32
	55	♊ Arietis	8.25.24,0	8.26.27,2	17.20	4,230		6.4.18	72.59.48
	56	Comet	9.3.10,3	9.4.13,66			-7.53,33	6.49.57	72.46.42
	57	♊ Arietis	9.11.3,6	9.12.6,99					72.59.48
Apr. 5	58	♊ Arietis	8.39.41,0	8.40.47,9	18.40	0,680	-4.45,39	6.18.38	72.59.48
	59	Comet	8.42.37,0	8.43.43,9	13.40	4,378	-4.44,58	6.26.20	72.53.10
	60	♊ Arietis	8.45.44,0	8.46.50,9	18.40	0,475	-4.43,93	6.24.41	72.59.48
	61	Comet	8.48.49,0	8.49.55,9	13.40	4,543		6.32.32	72.53.12
	62	Comet	8.59.27,3	9.0.34,21			-4.44,00	6.43.9	72.53.19
	63	♊ Arietis	9.4.11,3	9.5.18,21					72.59.48
	64	Comet	8.59.38,0	9.0.44,91			-4.43,40	6.43.19	72.53.19
	65	♊ Arietis	9.4.21,4	9.5.28,31					72.59.48
Apr. 6	66	Comet	8.50.54,0	8.52.4,2	15.20	1,260	-1.46,32	6.31.41	73.3.19
	67	♊ Arietis	8.53.23,0	8.54.33,2	17.0	2,865	-1.44,24	6.32.24	72.59.48
	68	Comet	8.56.1,0	8.57.11,2	15.20	1,788	-1.46,33	6.36.47	73.3.21
	69	♊ Arietis	8.58.47,0	8.59.57,2	17.0	3,390	-1.43,98	6.37.48	72.59.48
	70	Comet	9.1.16,0	9.2.26,2	15.20	2,383	-1.44,97	6.42.2	73.3.24
	71	♊ Arietis	9.4.0,0	9.5.10,2	17.0	3,640		6.43.1	72.59.48
	72	Comet	9.10.54,0	9.12.4,25			-1.43,80	6.51.38	73.3.28
	73	♊ Arietis	9.12.37,8	9.13.48,05					72.59.48
	74	Comet	9.11.4,5	9.12.14,75			-1.43,50	6.51.49	73.3.28
	75	♊ Arietis	9.12.48,0	9.13.58,25					72.59.48

One revolution of the Hour-Circle Microscope-micrometer = 3',951.

Nos. 38—45. Bisections at a straight edge across the middle of the field, adjusted so as to be perpendicular to the equatoreal movement. Power 100.

Nos. 44 and 45. These observations compared with the preceding exhibit a discordance for which I am unable to account: compared with each other they shew that the clock's rate continued nearly the same. It was thought best not to use them.

Nos. 46—48. All doubtful on account of clouds, especially the last, the star being seen but for an instant.

Nos. 49—52. The sky cleared up late in the evening and was after all very hazy. The observations are consequently doubtful, being taken hurriedly, and the times by X were not accurately noted. The comet was as bright as the star, if not brighter.

Correction for Refraction in R.A.	Correction for rate of Hour- Circle.	Correction for Parallax in R.A.	Corrected Difference of R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	s.	s.	m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
- 9,79									
- 10,08	- 1,00	+ 0,31	+ 4. 12,04	1. 48. 44,23	1. 52. 56,27	7. 20. 47,1	1. 52. 55,47	- 0,80	C.
- 10,93	- 1,53								
- 10,93	- 2,11	+ 0,31	+ 4. 13,04	.....	1. 52. 57,27	7. 28. 31,9	1. 52. 56,65	- 0,62	C.
- 11,86	- 2,57								
- 11,93	- 3,20	+ 0,31	+ 4. 14,43	.....	1. 52. 58,66	7. 36. 18,6	1. 52. 57,82	- 0,84	C.
- 13,24									
- 13,84									
- 16,15									
- 16,92	- 2,08	+ 0,31	+ 1. 36,57	1. 55. 3,83	1. 56. 40,40	8. 5. 54,3	1. 56. 40,38	- 0,02	C.
- 19,26	- 4,39								
- 20,39	- 0,32	+ 0,33	+ 8. 19,93	1. 59. 6,77	2. 7. 26,70	8. 13. 19,9	2. 7. 27,99	+ 1,29	C.
- 26,16	+ 0,00								
- 23,28	+ 0,23	+ 0,33	+ 8. 23,15	.....	2. 7. 29,92	8. 20. 17,7	2. 7. 29,00	- 0,92	C.
- 31,49	+ 0,64								
- 8,97									
- 11,19	+ 1,09	+ 0,36	- 7. 53,82	2. 22. 9,59	2. 14. 15,77	7. 26. 25,6	2. 14. 10,52	(- 5,25)	C.
- 11,42	+ 1,71								
- 21,26		+ 0,36	- 7. 52,49	.....	2. 14. 17,10	8. 12. 55,4	2. 14. 16,88	- 0,22	C.
- 21,74									
- 13,38									
- 14,68	+ 0,92	+ 0,36	- 4. 45,41	2. 22. 9,59	2. 17. 24,18	7. 48. 33,0	2. 17. 25,07	+ 0,89	C.
- 14,47	+ 1,90								
- 16,01	+ 2,85	+ 0,36	- 4. 44,52	.....	2. 17. 25,07	7. 54. 44,0	2. 17. 25,87	+ 0,80	C.
- 18,85		+ 0,36	- 4. 43,41	.....	2. 17. 26,18	8. 5. 20,6	2. 17. 27,24	+ 1,06	C.
- 19,08									
- 18,91		+ 0,36	- 4. 42,82	.....	2. 17. 26,77	8. 5. 31,3	2. 17. 27,26	+ 0,49	C.
- 19,13									
- 15,84	+ 0,41	+ 0,37	- 1. 45,45	2. 22. 9,58	2. 20. 24,13	7. 52. 56,1	2. 20. 24,58	+ 0,45	C.
- 15,93	+ 0,00								
- 17,10	- 0,30	+ 0,37	- 1. 45,34	.....	2. 20. 24,24	7. 58. 2,3	2. 20. 25,18	+ 0,94	C.
- 17,29	- 0,73								
- 18,62	- 0,48	+ 0,37	- 1. 44,69	.....	2. 20. 24,89	8. 3. 16,4	2. 20. 25,81	+ 0,92	C.
- 18,82	- 0,19								
- 22,12		+ 0,37	- 1. 43,58	.....	2. 20. 26,00	8. 12. 52,9	2. 20. 26,95	+ 0,95	C.
- 21,97									
- 22,20		+ 0,37	- 1. 43,28	.....	2. 20. 26,30	8. 13. 3,3	2. 20. 26,97	+ 0,67	C.
- 22,05									

N^{os}. 53—55. The star and comet were bisected at the edge of the circular field, between two thick parallel bars. This set is worth nothing, the clock's rate being irregular, and the interval between the observations too great.

N^{os}. 56 and 57. These were transits at the straight border of the micrometer eye-piece. Power 215. The time for the comet has been lessened by 0^s.5, the counting being found half a second in advance.

N^{os}. 58—61. After N^o. 61 the clock stopped, for want of winding up. The remaining observations are transits at the first and second borders of a straight bar across the middle of the field. The observations this evening were reckoned good.

N^{os}. 66—71. The clock's rate appeared variable at the time of taking N^o. 68. This day's observations are, however, good on the whole, circumstances being favourable and the comet bright and round.

N^{os}. 72—79. Transits at the parallel borders of a straight bar as on April 5.

Day of Observation.	Reference Number.	Object.	Time of Observation by Chronometer X.	Corresponding Sidereal Time.	Reading of Hour Circle Microscope-micrometer.		Difference of R.A. uncorrected.	Approximate Hour angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>r.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
Apr. 6.	76	Comet	9.14.20,9	9.15.31,15			-1.43,70	6.55.5	73.3.29
	77	ψ Arietis	9.16.4,6	9.17.14,85					72.59.48
	78	Comet	9.14.31,0	9.15.41,25			-1.43,50	6.55.15	73.3.29
	79	ψ Arietis	9.16.14,5	9.17.24,75					72.59.48
Apr. 8	80	Comet	8.46.18,0	8.47.30,8	19.40	0,760	+3.18,00	6.22.3	73.35.24
	81	ψ Arietis	8.49.6,0	8.50.18,8	16.20	1,265	+3.23,14	6.28.9	72.59.48
	82	Comet	8.57.37,0	8.58.49,8	19.40	2,060	+3.18,91	6.33.21	73.35.34
	83	ψ Arietis	9.1.30,0	9.2.42,8	16.20	2,335	+3.24,58	6.40.33	72.59.48
	84	Comet	9.7.28,0	9.8.40,9	19.40	3,495	+3.17,22	6.43.11	73.35.47
	85	ψ Arietis	9.12.49,0	9.14.1,9	16.20	4,200		6.51.52	72.59.48
Apr. 9	86	ψ Arietis	8.41.43,0	8.42.59,0	16.0	3,660	+5.20,02	6.20.49	72.59.48
	87	Comet	8.48.19,0	8.49.35,0	21.20	3,665	+5.16,76	6.22.6	73.58.26
	88	ψ Arietis	8.53.23,0	8.54.39,1	16.0	4,485	+5.22,13	6.32.30	72.59.48
	89	Comet	8.59.14,0	9.0.30,1	21.20	5,025	+5.18,42	6.33.0	73.58.38
	90	ψ Arietis	9.4.0,0	9.5.16,1	16.20	0,363		6.43.7	72.59.48
	91	ψ Arietis	9.8.6,5	9.9.22,57			+5.21,51	6.47.13	72.59.48
	92	Comet	9.13.28,0	9.14.44,08					73.58.53
	93	ψ Arietis	9.8.16,0	9.9.32,07			+5.23,51	6.47.22	72.59.48
	94	Comet	9.13.39,5	9.14.55,58					73.58.53

One revolution of the Hour-Circle Microscope-micrometer = 3^s.951.

N^o. 79. The time by X has been increased by 0^s.5, the counting being in defect half a second.

N^{os}. 80—85. The comet was perceptibly of less apparent diameter and less bright.

Correction for Refraction in R.A.	Correction for rate of Hour- Circle.	Correction for Parallax in R.A.	Corrected Difference of R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	s.	s.	m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
- 23,68 - 23,52		+ 0,37	- 1. 43,49	2. 22. 9,58	2. 20. 26,09	8. 16. 19,2	2. 20. 27,36	+ 1,27	C.
- 23,76 - 23,60		+ 0,37	- 1. 43,29	.....	2. 20. 26,29	8. 16. 29,3	2. 20. 27,38	+ 1,09	C.
- 14,48 - 15,10 - 17,06 - 18,19 - 20,11 - 22,22	+ 0,26 + 0,00 - 0,78 - 1,14 - 2,91 - 4,47	+ 0,40 + 0,40 + 0,40	+ 3. 19,28 + 3. 20,80 + 3. 21,29	2. 22. 9,59 	2. 25. 28,87 2. 25. 30,39 2. 25. 30,88	7. 40. 31,6 7. 51. 48,8 8. 1. 38,2	2. 25. 30,40 2. 25. 31,44 2. 25. 32,35	+ 1,53 + 1,05 + 1,47	C. C. C.
- 13,84 - 15,04 - 16,23 - 17,71 - 19,18	- 0,49 - 0,87 - 1,29 - 1,63	+ 0,41 + 0,41	+ 5. 18,74 + 5. 20,64	2. 22. 9,59 	2. 27. 28,33 2. 27. 30,23	7. 38. 39,6 7. 49. 32,8	2. 27. 31,22 2. 27. 32,03	+ 2,89 + 2,88	C. C.
- 20,60 - 22,82		+ 0,41	+ 5. 19,70	.....	2. 27. 29,29	8. 3. 44,5	2. 27. 33,10	+ 3,81	C.
- 20,65 - 22,89		+ 0,41	+ 5. 21,68	.....	2. 27. 31,27	8. 3. 56,0	2. 27. 33,11	+ 1,84	C.

Nos. 86—90. The comet was evidently less bright by the effect of day-light.

Nos. 91—94. Transits taken as on April 5 and 6.

Day of Observation.	Reference Number.	Object.	Time of Observation by Chronometer X.	Corresponding Sidereal Time.	Reading of Sector Microscope-micrometer.	Difference of Microscope readings in arc.	Approximate Hour Angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>d. r.</i>	<i>' "</i>	<i>h. m. s.</i>	<i>° ' "</i>
Mar. 5	1	* (I)	6.19.30	6.19.52,2	17.12,032	-9.47,72	5.41.11	78.20.1
	2	Comet	6.22.36	6.22.58,2	14.14,489	-9.27,05	5.47.51	78.10.45
	3	* (I)	6.25.42	6.26.4,2	17.10,005	-9.28,56	5.47.23	78.20.1
	4	Comet	6.29.50	6.30.12,2	14.14,342	-7.39,30	5.55.4	78.10.41
	5	* (I)	6.51.33	6.51.55,2	16.19,323		6.13.14	78.20.1
Mar. 6	6	Comet	7.2.5	7.2.29,4	11.13,212	-7.14,59	6.21.11	77.56.28
	7	Piazzi O. 208	7.7.6	7.7.30,4	13.15,769		6.24.11	78.4.26
Mar. 10	8	A.S.C. 93	6.55.45	6.56.8,8	16.12,680	+6.39,44	6.8.16	76.54.13
	9	Comet	7.0.43	7.1.6,8	18.11,790	+7.20,23	6.9.15	77.0.42
	10	A.S.C. 93	7.3.14	7.3.37,8	16.8,680	+5.58,73	6.15.45	76.54.13
	11	Comet	7.12.10	7.12.33,8	18.3,797		6.20.44	77.0.35
Mar. 23	12	Comet	7.49.1	7.49.43,3	9.6,800	+11.5,71	6.18.1	74.1.45
	13	4 Arietis	7.51.36	7.52.18,3	6.1,608	+11.25,81	6.12.40	73.49.55
	14	Comet	7.54.42	7.55.24,3	9.8,771	+11.44,88	6.23.42	74.1.43
	15	4 Arietis	7.56.47	7.57.29,3	5.19,770		6.17.51	73.49.55
	16	103 Piscium	8.2.13	8.2.55,3	12.1,514	-9.53,17	6.32.10	74.10.37
	17	Comet	8.3.21	8.4.3,3	9.3,437		6.32.19	74.1.38
	18	103 Piscium	8.6.57	8.7.39,3	11.19,740	-9.10,91	6.36.54	74.10.37
	19	Comet	8.9.55	8.10.37,3	9.5,774		6.38.52	74.1.35
	20	103 Piscium	8.13.41	8.14.23,3	11.8,887	-9.4,74	6.43.38	74.10.37
	21	Comet	8.15.40	8.16.22,3	8.15,560		6.44.36	74.1.32
	22	Comet	8.8.45	8.9.31,7	19.6,803	+12.1,99	6.20.52	73.8.23
	23	4 Arietis	8.12.30	8.13.16,7	15.16,125	+10.42,39	6.24.32	72.57.17
Mar. 28	24	Comet	8.23.30	8.24.16,7	18.19,030	+11.45,78	6.35.34	73.8.18
	25	4 Arietis	8.25.40	8.26.26,7	15.9,908	+10.18,02	6.37.42	72.57.17
	26	Comet	8.28.15	8.29.1,7	18.10,422	+11.14,91	6.40.19	73.8.16
	27	4 Arietis	8.31.13	8.31.59,7	15.4,328		6.43.15	72.57.17
	28	4 Arietis	8.56.26	8.57.12,8	14.5,369	+10.9,76	7.8.29	72.57.17
	29	Comet	8.58.19	8.59.5,8	17.4,073		7.9.36	73.8.5
	30	4 Arietis	8.16.21	8.17.9,7	16.3,590	+1.32,19	6.28.25	72.57.17
	31	Comet	8.26.50	8.27.38,7	16.12,632	+3.59,05	6.34.37	73.0.3
Mar. 29	32	4 Arietis	8.31.37	8.32.25,7	15.9,220		6.43.41	72.57.17
Mar. 30	33	Comet	7.45.17	7.46.7,6	14.15,516	-3.43,87	5.49.34	72.53.16
	34	4 Arietis	7.49.46	7.50.36,6	15.17,439	-4.1,59	6.1.52	72.57.17
	35	Comet	7.55.48	7.56.38,6	14.13,778	-3.45,25	6.0.4	72.53.13
	36	4 Arietis	7.59.16	8.0.6,6	15.15,837	-4.3,68	6.11.22	72.57.17
	37	Comet	8.3.1	8.3.51,6	14.11,971	-3.52,82	6.7.16	72.53.11
	38	4 Arietis	8.6.30	8.7.20,6	15.14,772		6.18.36	72.57.17

The illuminated side of the Telescope was West, the Telescope looking southwards. During all the observations the instrument was turned by the clock about its Polar axis.

One interval (*d*) between the Sector divisions = 204'',258.

One revolution (*r*) of the Sector Microscope-micrometer = 10'',196.

N^{os}. 1—5. The comet was sufficiently distinct and appeared nearly round. Power 100. The star and comet were alternately brought to the top of the circular field. The observations were not considered good. Casualties and clouds prevented getting observations of R.A.

N^{os}. 6 and 7. Good for little, the comet being faint, and the position of the Telescope inconvenient for observing and reading off.

N^{os}. 8—11. Observations made by placing the star and comet alternately between two dark parallel bars across the middle of the field. The comet was pretty bright and observed without difficulty.

Refraction in N.P.D.	Apparent Difference of N.P.D.	Correction for Parallax. in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Interpolated N.P.D.	Observer.
' "	' "	"	° ' "	° ' "	h. m. s.	° ' "	"	
3.30,85 3.47,37 3.48,39 4.11,32 5.43,19	-9.29,64 -9.8,40	-3,97 -3,99	78.20.0,64	78.10.27,03 78.10.48,25	7.30.3,6 7.37.16,4	78.10.43,33 78.10.39,19	+16,30 -9,06	C. C.
6.23,57 6.54,65	-7.45,67	-4,10	78.4.26,28	77.56.36,51	8.5.32,4	77.56.36,05	-0,46	C.
4.38,05 4.44,95 5.14,68 5.47,82	+6.48,42 +6.31,87	-4,21 -4,24	76.54.12,57	77.0.56,78 77.0.40,20	7.48.26,4 7.59.51,5	77.0.49,66 77.0.42,94	-7,12 +2,74	G. G.
4.21,69 3.59,11 4.45,26 4.17,19	+11.28,29 +12.12,46	-4,95 -4,97	73.49.54,92	74.1.18,26 74.2.2,41	7.45.48,1 7.51.28,2	74.1.50,45 74.1.47,53	+32,19 -14,88	G. G.
5.32,58 5.29,08	-9.56,67	-5,01	74.10.37,06	74.0.35,38	8.0.5,8	74.1.43,08	(+67,70)	G.
6.2,89 6.11,08	-9.2,72	-5,04	.....	74.1.29,30	8.6.38,7	74.1.39,71	+10,41	G.
6.54,82 6.56,24	-9.3,32	-5,07	.....	74.1.28,67	8.12.22,7	74.1.36,75	+8,08	G.
4.3,55 4.13,28 5.6,28 5.12,48 5.32,97 5.47,46	+11.52,26 +11.37,48 +10.49,46	-5,41 -5,50 -5,52	72.57.17,27	73.9.4,12 73.8.49,25 73.8.1,21	7.45.53,7 8.0.36,3 8.5.20,5	73.7.52,12 73.7.46,80 73.7.45,08	(-72,00) (-62,45) -16,13	C. C. C.
10.20,30 10.48,28	+10.37,74	-5,67	72.57.17,27	73.7.49,34	8.35.19,6	73.7.34,24	-15,10	G.
4.33,22 5.1,88 5.55,18	+2.33,30	-5,62	72.57.17,31	72.59.45,01	8.0.1,9	72.59.39,39	-5,62	C.
2.44,38 3.9,18 3.4,48 3.32,77 3.20,96 3.54,48	-4.8,67 -4.9,92 -4.20,92	-5,45 -5,52 -5,56	72.57.17,35	72.53.3,23 72.53.1,91 72.52.50,87	7.14.41,6 7.25.10,9 7.32.22,7	72.52.59,78 72.52.57,08 72.52.55,22	-3,45 -4,83 +4,35	C. C. C.

N^{os}. 12—15. Very unsatisfactory. The Sector reading for N^o. 13 was 6^h.11^m.60^s. The observer thought that the Telescope slipped in sweeping for the star, after observing the comet, or that it was a different star. As no star was found answering to the reading, it is presumed that there was a mistake of 10' in reading off.

N^{os}. 16—21. Considered good. For an explanation of the cause of discordance in those instances where the final results are put in brackets, see the Introduction.

N^{os}. 22—27. See the Introduction respecting the source of discordance in these. N^o. 22 was taken hurriedly. The Sector divisions in N^o. 24 were written down 19.

N^{os}. 28 and 29. The comet was getting faint. In other respects this set was good.

N^{os}. 30—32. Clouds prevented taking N^o. 31 sooner. All three observations were doubtful on account of clouds, and are worth very little.

N^{os}. 37 and 38. The comet was clouded and very obscure. A cloud came over at the instant of taking the star, making the observation doubtful. The noted time for the star is also uncertain.

Day of Observation.	Reference Number.	Object.	Time of Observation by Chronometer X.	Corresponding Sidereal Time.	Reading of Sector Microscope-micrometer.	Difference of Microscope readings in arc.	Approximate Hour Angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>d. r.</i>	<i>'' ''</i>	<i>h. m. s.</i>	<i>° ' ''</i>
Apr. 2	39 40	Piazzi I. 257 Comet	9.12.52 9.20.8	9.13.47,1 9.21.3,1	13.19,694 13.17,012	-0.27,35	7.14.40 7.13.42	72.43.29 72.42.21
Apr. 4	41 42 43	ψ Arietis Comet ψ Arietis	8.1.0 8.16.33 8.25.24	8.2.3,2 8.17.36,2 8.26.27,2	17.0,525 12.19,257 16.16,972	-13.49,96 -13.13,40	5.39.54 6.3.26 6.4.18	72.59.48 72.46.32 72.59.48
	44 45 46 47	Comet ψ Arietis Comet ψ Arietis	8.36.24 8.40.24 8.43.32 8.46.36	8.37.27,3 8.41.27,3 8.44.35,3 8.47.39,3	12.13,626 16.11,480 12.10,627 16.9,848	-13.15,15 -13.45,73 -13.29,09	6.23.15 6.19.18 6.30.22 6.25.30	72.46.36 72.59.48 72.46.37 72.59.48
Apr. 5	48 49 50	ψ Arietis Comet ψ Arietis	8.13.28 8.17.33 8.19.52	8.14.34,7 8.18.39,7 8.20.58,7	16.16,359 14.14,348 16.15,285	-7.9,02 -6.58,07	5.52.25 6.1.20 5.58.49	72.59.48 72.53.1 72.59.48
	51 52 53 54 55 56	Comet ψ Arietis Comet ψ Arietis Comet ψ Arietis	8.23.27 8.27.0 8.29.26 8.32.15 8.34.44 8.37.2	8.24.33,7 8.28.6,7 8.30.32,7 8.33.21,8 8.35.50,8 8.38.8,8	14.12,086 16.13,934 14.10,647 16.12,780 14.9,080 16.11,075	-7.7,36 -7.22,03 -7.10,27 -7.26,24 -7.8,86	6.7.13 6.5.57 6.13.11 6.11.12 6.18.28 6.15.59	72.53.3 72.59.48 72.53.5 72.59.48 72.53.7 72.59.48
Apr. 6	57 58 59 60 61 62 63	ψ Arietis Comet ψ Arietis Comet ψ Arietis Comet ψ Arietis	8.27.46 8.34.55 8.38.18 8.40.59 8.43.15 8.45.5 8.46.52	8.28.56,1 8.36.5,1 8.39.28,1 8.42.9,1 8.44.25,1 8.46.15,1 8.48.2,1	16.18,442 17.11,433 16.11,364 17.10,290 16.8,625 17.8,072 16.6,613	+2.12,79 +3.24,96 +3.13,31 +3.41,23 +3.18,62 +3.39,13	6.6.47 6.15.44 6.17.19 6.21.48 6.22.16 6.25.53 6.25.53	72.59.48 73.3.12 72.59.48 73.3.15 72.59.48 73.3.17 72.59.48
Apr. 8	64 65 66 67	Comet ψ Arietis Comet ψ Arietis	9.21.1 9.24.26 9.27.47 9.31.26	9.22.14,0 9.25.39,0 9.29.0,0 9.32.39,0	25.19,840 14.18,136 25.10,825 14.6,857	+37.44,55 +36.12,30 +38.7,30	6.56.41 7.3.29 7.3.27 7.10.29	73.35.54 72.59.48 73.26.0 72.59.48
Apr. 9	68 69	* (II) Comet	9.20.18 9.23.51	9.21.34,1 9.25.7,1	23.6,383 23.8,318	+0.19,73	6.50.9 6.57.36	73.57.13 73.59.4

One interval (*d*) between the Sector divisions = 204'',258.

One revolution (*r*) of the Sector Microscope-micrometer = 10'',196.

N^{os}. 39 and 40. The objects were too low for observing well.

N^{os}. 41—43. These were simultaneous observations of differences of R.A. and N.P.D. See N^{os}. 53—55 of the observations of R.A. They are pretty good as measures of differences of N.P.D. In N^o. 42 the division on the negative side of zero was bisected, and the reading is consequently equivalent to 12^d.19',290.

Refraction in N.P.D.	Apparent Difference of N.P.D.	Correction for Parallax in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Interpolated N.P.D.	Observer.
" "	" "	" "	" " "	" " "	h. m. s.	" " "	" "	
12. 1,29 11. 38,38	- 0. 50,26	- 6,38	72. 43. 28,56	72. 42. 31,92	8. 37. 33,9	72. 42. 10,63	- 21,29	C.
2. 35,94 3. 18,27 3. 23,06	- 13. 25,82	- 6,28	72. 59. 47,63	72. 46. 28,44	7. 26. 25,6	72. 46. 12,44	- 16,00	C.
4. 16,64 4. 6,63	- 13. 5,14	- 6,41	.....	72. 46. 36,08	7. 46. 13,4	72. 46. 16,43	- 19,65	C.
4. 45,53 4. 29,75	- 13. 10,07	- 6,46	.....	72. 46. 31,10	7. 53. 20,2	72. 46. 17,87	- 13,23	C.
2. 55,74 3. 12,95 3. 8,71	- 6. 52,82	- 6,45	72. 59. 47,67	72. 52. 48,40	7. 23. 33,0	72. 52. 36,27	- 12,13	C.
3. 27,03 3. 25,29	- 7. 5,62	- 6,49	.....	72. 52. 35,56	7. 29. 26,0	72. 52. 38,25	(+ 2,69)	C.
3. 43,28 3. 39,25	- 7. 5,14	- 6,53	.....	72. 52. 36,00	7. 35. 24,0	72. 52. 40,26	(+ 4,26)	C.
3. 59,64 3. 53,50	- 7. 4,29	- 6,57	72. 59. 47,67	72. 52. 36,81	7. 40. 41,2	72. 52. 42,06	(+ 5,25)	C.
3. 25,08 3. 51,54 3. 55,11	+ 3. 21,39	- 6,76	72. 59. 47,70	73. 3. 2,33	7. 36. 59,6	73. 2. 36,94	- 25,39	C.
4. 11,43 4. 12,03	+ 3. 35,13	- 6,80	.....	73. 3. 16,03	7. 43. 2,6	73. 2. 39,91	- 36,12	C.
4. 27,01 4. 25,80	+ 3. 36,97	- 6,83	.....	73. 3. 17,84	7. 47. 8,0	73. 2. 41,94	- 35,90	C.
8. 31,06 9. 18,19	+ 36. 57,42	- 7,52	72. 59. 47,75	73. 36. 37,65	8. 15. 9,1	73. 35. 12,98	(- 84,67)	C.
10. 7,56 11. 11,56	+ 37. 2,44	- 7,57	.....	73. 36. 42,62	8. 21. 54,0	73. 35. 18,80	(- 83,82)	C.
7. 43,31 9. 18,04	+ 1. 54,46	- 7,80	73. 57. 13,31	73. 58. 59,97	8. 14. 5,9	73. 58. 18,16	- 41,81	C.

N^o. 48—56. The sector reading for N^o. 48 was set down 16^d. 11', 359, it is presumed, by a mistake of 5' in reading off. After N^o. 50 the Instrument was considerably disturbed. The remaining observations were thought to be good. See Introduction.

N^o. 57—63. All considered satisfactory except the first, which, as being evidently affected by some cause of discordance, is not used.

N^o. 64—67. These very unsatisfactory. In the last two the objects were so low that a part of the object-glass was intercepted by the curb of the dome. It was found also that some shrubs were in the way. In N^o. 64 the negative division was bisected, and the reading is therefore equivalent to 25^d. 19', 873.

N^o. 68 and 69. The star was a small one and very faint, but the observations were not doubtful.

Day of Observation.	Reference Number.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Reduction to Middle Wire.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
March 5	1	* (I) Comet	6.19.22,0	6.17.21,51	-71,21	5.38.40	78.20.1
	2		6.19.26,0	6.17.25,51	-71,25		78.10.48
	3	* (I) Comet	6.20.24,0	6.18.23,51	-71,21	5.39.42	78.20.1
	4		6.20.27,0	6.18.26,51	-71,25		78.10.48
	5	* (I) Comet	6.22.22,0	6.20.21,51	-71,21	5.41.40	78.20.1
	6		6.22.25,0	6.20.24,51	-71,25		78.10.46
March 6	7	Comet	6.32.46,6	6.30.38,28	-71,31	5.49.23	77.56.59
	8	Piazzi O. 208	6.34.51,0	6.32.42,68	-71,28		78.4.26
	9	Comet	6.43.30,0	6.41.21,69	-71,31	6.0.9	77.56.53
	10	Piazzi O. 208	6.45.36,8	6.43.28,49	-71,28		78.4.26
March 30	11	Comet	8.2.33,5	8.2.7,26	+21,95	6.5.32	72.53.12
	12	Piazzi I. 257	8.5.5,0	8.4.38,76	+21,97		72.43.28
April 2	13	Comet	9.8.44,0	9.8.4,30	+50,88	7.0.34	72.42.18
	14	θ_1 Arietis	9.10.35,0	9.9.55,30	+51,43		70.49.52
April 3	15	θ_1 Arietis	8.18.24,0	8.17.39,03	+22,21	6.8.18	70.49.52
	16	Comet	8.19.54,0	8.19.9,03	+21,97		72.43.12
	17	θ_1 Arietis	8.21.29,0	8.20.44,03	+22,21	6.11.23	70.49.52
	18	Comet	8.22.59,0	8.22.14,03	+21,97		72.43.3
	19	θ_1 Arietis	8.27.2,0	8.26.17,04	+22,21	6.16.56	70.49.52
	20	Comet	8.28.31,0	8.27.46,04	+21,97		72.43.13
April 4	21	θ_1 Arietis	8.12.14,8	8.11.24,49	+22,21	6.2.3	70.49.52
	22	Comet	8.17.15,4	8.16.25,09	+10,81	6.2.15	72.46.34
	23	θ_1 Arietis	8.19.42,5	8.18.52,19	+22,21	6.9.31	70.49.52
	24	Comet	8.24.32,6	8.23.42,29	+21,96		72.46.35
	25	θ_1 Arietis	8.26.32,4	8.25.42,09	+22,21	6.16.21	70.49.52
	26	Comet	8.31.24,5	8.30.34,20	+21,96		72.46.30
	27	θ_1 Arietis	8.34.29,5	8.33.39,20	+22,21	6.24.18	70.49.52
	28	Comet	8.39.21,8	8.38.31,50	+21,96		72.46.35
	29	θ_1 Arietis	8.43.45,7	8.42.55,40	+22,21	6.33.34	70.49.52
	30	Comet	8.48.40,8	8.47.50,51	+21,96		72.46.38
April 5	31	Comet	8.21.15,3	8.20.19,89	+21,95	6.3.0	72.53.7
	32	ψ Arietis	8.26.5,0	8.25.9,59	+21,94		72.59.48
	33	Comet	8.32.40,0	8.31.44,56	+21,95	6.14.22	72.53.1
	34	ψ Arietis	8.37.27,3	8.36.31,85	+21,94		72.59.48
	35	Comet	8.39.9,8	8.38.14,35	+21,95	6.20.51	72.53.6
	36	ψ Arietis	8.43.56,4	8.43.0,94	+21,94		72.59.48

N^{os}. 1—10. Disappearances of the comet and star at the straight border of the field. In N^o. 9 the comet was very faint.

N^{os}. 11 and 12. Transits at the first wire, considered good.

N^{os}. 13 and 14. Entering at comb. Observed hurriedly between clouds.

N^{os}. 15—20. All at the first wire, the comet being bright enough to allow of sufficient illumination for seeing the wires. The first two sets were made while the field was sufficiently illumined by twilight. The last was less satisfactory on account of clouds.

Correction for Refraction in R.A.	Apparent Difference of R.A.	Correction for Parallax in R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	m. s.	s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
- 11,13 - 11,04	+ 0. 4,05	+ 0,22	0. 38. 41,65	0. 38. 45,92	7. 24. 31,8	0. 38. 42,37	- 3,55	G.
- 11,27 - 11,18	+ 0. 3,05	+ 0,22	.....	0. 38. 44,92	7. 25. 32,6	0. 38. 42,47	- 2,45	G.
- 11,54 - 11,44	+ 0. 3,06	+ 0,22	.....	0. 38. 44,93	7. 27. 30,3	0. 38. 42,68	- 2,25	G.
- 12,37 - 12,46	- 2. 4,34	+ 0,22	0. 43. 19,36	0. 41. 15,24	7. 33. 46,5	0. 41. 15,00	- 0,24	G.
- 14,32 - 14,45	- 2. 6,70	+ 0,22	.....	0. 41. 12,88	7. 44. 28,1	0. 41. 16,14	+ 3,26	G.
- 11,07 - 10,97	- 2. 31,62	+ 0,31	1. 59. 6,77	1. 56. 35,46	7. 30. 38,7	1. 56. 35,04	- 0,42	G.
- 24,76 - 20,66	- 1. 55,65	+ 0,33	2. 9. 21,35	2. 7. 26,03	8. 24. 37,2	2. 7. 29,64	+ 3,61	G.
- 10,58 - 11,64	+ 1. 28,70	+ 0,35	2. 9. 21,35	2. 10. 50,40	7. 31. 54,0	2. 10. 50,10	- 0,30	G.
- 10,92 - 12,06	+ 1. 28,62	+ 0,35	.....	2. 10. 50,32	7. 34. 58,5	2. 10. 50,54	+ 0,22	G.
- 11,57 - 12,87	+ 1. 27,46	+ 0,35	.....	2. 10. 49,16	7. 40. 29,6	2. 10. 51,32	+ 2,16	G.
- 10,08 - 11,05	+ 4. 48,23	+ 0,36	2. 9. 21,34	2. 14. 9,93	7. 25. 14,6	2. 14. 10,36	+ 0,43	G.
- 10,84 - 11,97	+ 4. 48,72	+ 0,36	.....	2. 14. 10,42	7. 32. 30,6	2. 14. 11,35	+ 0,93	G.
- 11,63 - 12,96	+ 4. 50,53	+ 0,36	.....	2. 14. 12,23	7. 39. 21,4	2. 14. 12,29	+ 0,06	G.
- 12,70 - 14,33	+ 4. 50,42	+ 0,35	.....	2. 14. 12,11	7. 47. 17,4	2. 14. 13,38	+ 1,27	G.
- 14,18 - 16,29	+ 4. 52,75	+ 0,35	.....	2. 14. 14,44	7. 56. 34,9	2. 14. 14,65	+ 0,21	G.
- 11,11 - 11,16	- 4. 49,64	+ 0,37	2. 22. 9,59	2. 17. 20,32	7. 25. 12,9	2. 17. 22,06	+ 1,74	G.
- 12,63 - 12,70	- 4. 47,21	+ 0,37	.....	2. 17. 22,75	7. 36. 35,7	2. 17. 23,53	+ 0,78	G.
- 13,67 - 13,76	- 4. 46,49	+ 0,37	.....	2. 17. 23,47	7. 43. 4,4	2. 17. 24,36	+ 0,89	G.
<p>N^o. 21 and 22. Star at first wire, comet at second wire. All the rest on this day at the first wire.</p> <p>N^o. 21—30. These observations on the whole satisfactory. The comet was in some degree obscured by light clouds; but the wires were seen sufficiently, partly in twilight and partly by lamp-light.</p> <p>N^o. 28 is doubtful, as a cloud hid the comet just as it reached the wire.</p> <p>N^o. 31—40. At first wire. In N^o. 31 the comet was rather faint from twilight and haze.</p>								

Day of Observation.	Reference Number.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Reduction to Middle Wire.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
April 5	37	Comet	8.45.34,2	8.44.38,71	+21,95	6.27.14	72.53.8
	38	ψ Arietis	8.50.19,5	8.49.24,00	+21,94		72.59.48
	39	Comet	8.52.39,0	8.51.43,49	+21,95	6.34.19	72.53.16
	40	ψ Arietis	8.57.24,4	8.56.28,88	+21,94		72.59.48
	41	Comet	8.54.15,6	8.53.20,09	-72,97	6.35.54	72.53.17
	42	ψ Arietis	8.58.59,1	8.58.3,58	-72,93		72.59.48
	43	Comet	9.29.5,2	9.28.9,55	+21,95	7.10.42	72.53.29
	44	ψ Arietis	9.33.47,0	9.32.51,34	+21,94		72.59.48
	45	Comet	9.30.43,6	9.29.47,95	-72,97	7.12.18	72.53.30
	46	ψ Arietis	9.35.23,0	9.34.27,34	-72,93		72.59.48
April 6	47	Comet	8.36.51,0	8.35.49,93	+21,93	6.15.29	73.3.10
	48	ψ Arietis	8.38.39,8	8.37.38,73	+21,94		72.59.48
	49	Comet	8.39.41,2	8.38.40,13	+21,93	6.18.19	73.3.13
	50	ψ Arietis	8.41.29,5	8.40.28,42	+21,94		72.59.48
	51	Comet	8.42.15,2	8.41.14,11	+21,93	6.20.53	73.3.15
	52	ψ Arietis	8.44.3,4	8.43.2,31	+21,94		72.59.48
	53	Comet	8.45.11,6	8.44.10,51	+21,93	6.23.48	73.3.18
	54	ψ Arietis	8.46.59,0	8.45.57,91	+21,94		72.59.48
	55	Comet	8.47.47,4	8.46.46,29	+21,93	6.26.25	73.3.18
	56	ψ Arietis	8.49.35,5	8.48.34,39	+21,94		72.59.48
	57	Comet	8.50.51,2	8.49.50,09	+21,93	6.29.28	73.3.21
	58	ψ Arietis	8.52.38,8	8.51.37,68	+21,94		72.59.48
	59	Comet	8.53.32,2	8.52.31,08	+21,93	6.32.8	73.3.22
	60	ψ Arietis	8.55.18,4	8.54.17,26	+21,94		72.59.48
April 8	61	Comet	8.58.4,3	8.57.3,16	+21,93	6.36.39	73.3.21
	62	ψ Arietis	8.59.50,0	8.58.48,86	+21,94		72.59.48
	63	Comet	9.1.8,3	9.0.7,14	+21,93	6.39.43	73.3.24
	64	ψ Arietis	9.2.53,8	9.1.52,65	+21,94		72.59.48
	65	Comet	9.3.51,4	9.2.50,25	+21,93	6.42.27	73.3.26
	66	ψ Arietis	9.5.38,0	9.4.36,83	+21,94		72.59.48
	67	ψ Arietis	8.52.15,2	8.51.0,71	+21,94	6.28.51	72.59.48
	68	Comet	8.55.34,4	8.54.19,90	+21,87		73.35.34
	69	ψ Arietis	8.57.23,8	8.56.9,30	+21,94	6.34.0	72.59.48
	70	Comet	9.0.44,0	8.59.29,50	+21,87		73.35.39
April 8	71	ψ Arietis	9.2.41,8	9.1.27,28	+21,94	6.39.18	72.59.48
	72	Comet	9.6.2,8	9.4.48,27	+21,87		73.35.36
	73	ψ Arietis	9.7.54,0	9.6.39,47	+21,94	6.44.30	72.59.48
	74	Comet	9.11.16,4	9.10.1,86	+21,87		73.35.38
	75	ψ Arietis	9.13.9,7	9.11.55,15	+21,94	6.49.46	72.59.48
	76	Comet	9.16.32,0	9.15.17,44	+21,87		73.35.50

N^{os.} 41 and 42. The comet and star departing.

N^{os.} 43—46. The first set taken at first wire, the other at departure. Both sets unsatisfactory, as the comet and star had become very faint.

N^{os.} 47—84. These observations are all transits at the first wire.

Correction for Refraction in R.A.	Apparent Difference of R.A.	Correction for Parallax in R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	m. s.	s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
- 14,87 - 14,98	- 4. 45,17	+ 0,36	2. 22. 9,59	2. 17. 24,78	7. 49. 27,7	2. 17. 25,19	+ 0,41	G.
- 16,45 - 16,58	- 4. 45,25	+ 0,36	.....	2. 17. 24,70	7. 56. 31,3	2. 17. 26,10	+ 1,40	G.
- 16,83 - 16,98	- 4. 43,38	+ 0,36	.....	2. 17. 26,57	7. 58. 7,7	2. 17. 26,31	- 0,26	G.
- 33,56 - 34,12	- 4. 41,22	+ 0,35	.....	2. 17. 28,72	8. 32. 51,4	2. 17. 30,78	+ 2,06	G.
- 35,03 - 35,64	- 4. 38,82	+ 0,35	.....	2. 17. 31,12	8. 34. 28,6	2. 17. 30,99	- 0,13	G.
- 12,78 - 12,73	- 1. 48,86	+ 0,38	2. 22. 9,58	2. 20. 21,10	7. 36. 44,5	2. 20. 22,65	+ 1,55	G.
- 13,23 - 13,18	- 1. 48,35	+ 0,38	.....	2. 20. 21,61	7. 39. 34,2	2. 20. 22,99	+ 1,38	G.
- 13,67 - 13,61	- 1. 48,27	+ 0,38	.....	2. 20. 21,69	7. 42. 7,8	2. 20. 23,30	+ 1,61	G.
- 14,21 - 14,14	- 1. 47,48	+ 0,38	.....	2. 20. 22,48	7. 45. 3,7	2. 20. 23,64	+ 1,16	G.
- 14,72 - 14,65	- 1. 48,18	+ 0,38	.....	2. 20. 21,78	7. 47. 39,1	2. 20. 23,95	+ 2,17	G.
- 15,36 - 15,28	- 1. 47,68	+ 0,38	.....	2. 20. 22,28	7. 50. 42,4	2. 20. 24,31	+ 2,03	G.
- 15,96 - 15,87	- 1. 46,28	+ 0,37	.....	2. 20. 23,67	7. 53. 22,9	2. 20. 24,63	+ 0,96	G.
- 17,09 - 16,99	- 1. 45,81	+ 0,37	.....	2. 20. 24,14	7. 57. 54,2	2. 20. 25,17	+ 1,03	G.
- 17,94 - 17,83	- 1. 45,63	+ 0,37	.....	2. 20. 24,32	8. 0. 57,7	2. 20. 25,52	+ 1,20	G.
- 18,81 - 18,64	- 1. 46,76	+ 0,37	.....	2. 20. 23,19	8. 3. 40,4	2. 20. 25,86	+ 2,67	G.
- 16,25 - 15,95	+ 3. 19,42	+ 0,40	2. 22. 9,59	2. 25. 29,41	7. 47. 19,6	2. 25. 31,02	+ 1,61	G.
- 16,42 - 17,31	+ 3. 19,24	+ 0,40	.....	2. 25. 29,23	7. 52. 28,4	2. 25. 31,51	+ 2,28	G.
- 17,83 - 18,81	+ 3. 19,94	+ 0,40	.....	2. 25. 29,93	7. 57. 46,3	2. 25. 32,00	+ 2,07	G.
- 19,44 - 20,62	+ 3. 21,14	+ 0,39	.....	2. 25. 31,12	8. 2. 59,0	2. 25. 32,48	+ 1,36	G.
- 21,36 - 22,80	+ 3. 20,78	+ 0,39	.....	2. 25. 30,76	8. 8. 13,7	2. 25. 32,96	+ 2,20	G.

N^{os.} 47—66. All pretty good, but the comet did not bear illumination well on account of the hazy state of the atmosphere, and was not so bright and well defined as on the preceding day.

N^{os.} 67—76. The comet was considerably fainter, and would hardly bear any illumination. The second set was unsatisfactory, the third was considered much better. In the last the star was very faint.

Day of Observation.	Reference Number.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Reduction to Middle Wire.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
April 9	77	ω Arietis	8.55.24,4	8.54. 8,87	+21,65	6.29.53	75.40. 1
	78	Comet	8.58.34,0	8.57.18,46	+21,83		73.58.39
	79	ω Arietis	9. 0.26,7	8.59.11,16	+21,65	6.34.55	75.40. 1
	80	Comet	9. 3.36,4	9. 2.20,85	+21,83		73.58.43
	81	ω Arietis	9. 5.53,5	9. 4.37,94	+21,65	6.40.22	75.40. 1
	82	Comet	9. 9. 3,5	9. 7.47,93	+21,83		73.58.41
	83	ω Arietis	9.12. 7,3	9.10.51,71	+21,65	6.46.36	75.40. 1
	84	Comet	9.15.16,4	9.14. 0,80	+21,83		73.58.50

N^{os}. 77—84. The comet very small and faint, scarcely bearing illumination enough for the wires. The observations are consequently not altogether satisfactory. The series was interrupted by the star being too low and faint to be seen longer.

Correction for Refraction in R.A.	Apparent Difference of R.A.	Correction for Parallax in R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	m. s.	s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
- 19,53 - 16,66	+ 3 . 12,64	+ 0,41	2 . 24 . 16,07	2 . 27 . 29,12	7 . 46 . 21,8	2 . 27 . 31,79	+ 2,67	G.
- 21,45 - 18,02	+ 3 . 13,30	+ 0,41	.....	2 . 27 . 29,78	7 . 51 . 23,3	2 . 27 . 32,18	+ 2,40	G.
- 23,94 - 19,72	+ 3 . 14,39	+ 0,41	.....	2 . 27 . 30,87	7 . 56 . 49,5	2 . 27 . 32,58	+ 1,71	G.
- 27,58 - 22,06	+ 3 . 14,79	+ 0,41	.....	2 . 27 . 31,27	8 . 3 . 1,4	2 . 27 . 33,04	+ 1,77	G.

Day of Observation.	Reference No.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Pointer Reading.	Microscope or Micrometer.	Microscope or Micrometer Reading.	Correction for Error of Division.	Correction for Run.	Concluded Reading of Declination Circle.	Apparent Excess of N.P.D. of Comet.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>0 ' "</i>		<i>' "</i>	<i>" "</i>	<i>" "</i>	<i>0 ' "</i>	<i>0 ' "</i>
Mar. 5	1	Comet	6.25.19	6.23.18,5	258.5	A.	4.31,8	30,8	-3,9	258.10.18,45	-42.24,35
	2	58 Piscium	6.29.0	6.26.59,5	258.50	B.	4.20,0	77,8	+0,4	258.52.42,80	
						A.	1.52,1	33,1	-1,6		
						B.	1.43,9	77,9	+0,2		
	3	Comet	6.37.18	6.35.17,5	258.5	A.	3.51,8	30,8	-3,3	258.9.39,45	-42.7,35
	4	58 Piscium	6.42.53	6.40.52,5	258.50	B.	3.41,4	77,8	+0,4	258.51.46,80	
						A.	0.55,0	33,1	-0,8		
						B.	0.48,3	77,9	+0,1		
Mar. 6	5	Comet	6.30.38	6.28.29,7							-7.34,77
	6	Piazzi O. 208	6.33.40	6.31.31,7		U.	86,382				
	7	Comet	6.41.24	6.39.15,7							-7.10,39
	8	Piazzi O. 208	6.44.26	6.42.17,7		U.	87,112				
Mar. 30	9	Comet	8.2.33,5	8.2.7,3	252.50	A.	2.31,6	23,7	-2,2	252.53.15,25	+9.42,12
	10	Piazzi I. 257	8.5.5,0	8.4.38,8	252.45	B.	2.9,9	87,3	+0,2	252.43.33,13	
						A.	0.59,4	24,7	-0,9		
						B.	0.40,1	86,9	+0,1		
	11	Comet	8.16.30	8.16.3,8	252.50	A.	1.47,0	23,7	-1,5	252.52.32,80	
						B.	1.29,0	87,3	+0,1		
	12	Comet	8.33.2	8.32.35,8	252.50	A.	0.40,9	23,7	-0,6	252.51.27,25	
						B.	0.23,2	87,3	+0,0		
Apr. 2	13	Comet	8.56.43	8.56.3,3	252.35	A.	3.42,7	23,8	-3,2	252.39.34,40	+1.51.57,75
	14	θ^1 Arietis	9.3.30	9.2.50,3	250.45	B.	3.37,0	88,1	+0,4	250.47.36,65	
						A.	1.47,7	22,3	-1,5		
						B.	1.34,2	90,4	+0,2		
	15	Comet	9.8.44	9.8.4,3	252.35	A.	1.59,0	23,8	-1,7	252.37.49,35	+1.51.1,85
	16	θ^1 Arietis	9.10.35	9.9.55,3	250.45	B.	1.49,3	88,1	+0,2	250.46.47,50	
						A.	0.57,1	22,3	-0,8		
						B.	0.45,9	90,4	+0,1		
Apr. 3	17	θ^1 Arietis	8.18.24	8.17.39,0	250.45	A.	4.37,9	22,3	-4,0	250.49.56,20	+1.52.57,20
	18	Comet	8.19.54	8.19.9,0	252.40	A.	2.31,0	24,6	-2,2	252.42.53,40	
	19	θ^1 Arietis	8.21.29	8.20.44,0	250.45	A.	4.34,0	22,3	-4,0	250.49.52,30	+1.52.47,30
	20	Comet	8.22.59	8.22.14,0	252.40	A.	2.17,0	24,6	-2,0	252.42.39,60	
	21	θ^1 Arietis	8.27.2	8.26.17,0	250.45	A.	4.17,5	22,3	-3,7	250.49.36,10	+1.52.54,60
	22	Comet	8.28.31	8.27.46,0	252.40	A.	2.7,9	24,6	-1,8	252.42.30,70	

The graduated face of the Declination Circle was West. Coincidence reading of U at middle wire = 99',998.
 Coincidence reading of L at first wire = 9',891. One micrometer revolution = 33'',400.
 Correction for Run of A = -4'',3. For Run of B = +0'',5.

N^{os.} 1 and 2. The comet and star were placed in the hole of the comb.
 N^{os.} 3 and 4. The comet placed in the hole of the comb, the star bisected at the first wire.
 N^{os.} 5—8. The comet in the hole of the comb, the star bisected at the middle wire. The second set was not satisfactory, the comet being very faint.
 N^{os.} 9—12. In the first set the comet and star were bisected at the first wire, the comet rather doubtfully on account of its faintness: the star was bisected by the micrometer wire L, the observer supposing the comet had been bisected by this wire, which however was not the case. In the other two sets the comet was placed

Approximate Hour angle West from the Meridian.	Approximate N.P.D. of Object.	Refraction in N.P.D.	Correction for Parallax in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Inter- polated N.P.D.	Observer.
<i>h. m. s.</i>	<i>0 ' "</i>	<i>' "</i>	<i>"</i>	<i>0 ' "</i>	<i>0 ' "</i>	<i>h. m. s.</i>	<i>0 ' "</i>	<i>"</i>	
5.48.12	78.10.40 78.53.16	3.48,32 4.0,15	-3,97	78.53.15,91	78.10.35,76	7.30.23,8	78.10.43,14	+7,38	G.
6.0.9 6.2.5	78.10.43 78.53.16	4.30,76 4.56,50	-4,01	.....	78.10.38,81	7.42.21,3	78.10.36,30	-2,51	G.
5.47.15 5.48.12	77.56.47 78.4.26	3.40,97 3.45,76	-4,00	78.4.26,28	77.56.42,72	7.31.38,2	77.56.55,58	+12,86	G.
5.58.2 5.58.58	77.57.47 78.4.26	4.16,97 4.22,47	-4,04	.....	77.57.6,35	7.42.22,5	77.56.49,39	-16,96	G.
6.5.32	72.53.12 72.43.28	3.16,73 3.14,78	-5,55	72.43.28,42	72.53.6,94	7.30.38,7	72.52.55,67	-11,27	G.
6.19.26	72.53.8	3.55,53	-5,63	.....	72.53.3,21	7.44.32,9	72.52.52,08	-11,13	G.
6.35.56	72.53.4	5.2,93	-5,73	.....	72.53.4,96	8.1.2,2	72.52.47,84	-17,12	G.
6.48.46 6.53.29	72.42.27 70.49.52	6.23,06 5.45,69	-6,25	70.49.51,69	72.42.20,56	8.12.38,2	72.42.11,12	-9,44	G.
7.0.34	72.42.18 70.49.52	8.0,13 6.35,49	-6,31	.....	72.42.11,87	8.24.37,2	72.42.10,89	-0,98	G.
6.8.18	70.49.52 72.43.12	3.4,56 3.27,17	-6,13	70.49.51,73	72.43.5,41	7.31.54,0	72.42.51,98	-13,43	G.
6.11.23	70.49.52 72.43.3	3.11,35 3.35,29	-6,15	.....	72.42.56,82	7.34.58,5	72.42.52,22	-4,60	G.
6.16.56	70.49.52 72.43.13	3.24,33 3.51,48	-6,19	.....	72.43.7,29	7.40.29,6	72.42.52,67	-14,62	G.

opposite the hole of the comb: the star was clouded. These were reckoned good. The adopted correction for index error, derived from N°. 10, is $-3'.19'',49$.

N°. 13—16. The objects were placed opposite the hole of the comb. In the first set the instrument was moved between the observations, as the star was hid at first by clouds. The other set was satisfactory. Clouds interfered with the observations of this day.

N°. 17—22. All good except the observation of the comet in the second set, which being made in twilight, the wires were not well seen.

Day of Observation.	Reference No.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Pointer Reading.	Microscope or Micrometer.	Microscope or Micrometer Reading.	Correction for Error of Division.	Correction for Runs.	Concluded Reading of Declination Circle.	Apparent Excess of N.P.D. of Comet.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>0 ' "</i>		<i>—</i>	<i>—</i>	<i>—</i>	<i>0 ' "</i>	<i>0 ' "</i>
Apr. 4	23	θ^1 Arietis	8.12.14,8	8.11.24,5	250.45	A.	4.47,7	22,3	-4,1	250.50.30,75	+1.56.21,65
	24	Comet	8.17.15,4	8.16.25,1	252.45	B.	4.24,8	90,4	+0,4	252.46.52,40	
						A.	1.4,7	24,7	-0,9		
						B.	0.49,3	86,9	+0,1		
	25	θ^1 Arietis	8.19.42,5	8.18.52,2	250.45	A.	4.35,8	22,3	-4,0	250.50.17,95	+1.56.19,60
	26	Comet	8.24.32,6	8.23.42,3	252.45	B.	4.11,0	90,4	+0,4	252.46.37,55	
						A.	0.49,8	24,7	-0,7		
						B.	0.34,3	86,9	+0,1		
	27	θ^1 Arietis	8.26.32,4	8.25.42,1	250.45	A.	4.20,5	22,3	-3,7	250.50.3,55	+1.56.10,40
	28	Comet	8.31.24,5	8.30.34,2	252.45	B.	3.57,2	90,4	+0,4	252.46.13,95	
						A.	0.25,8	24,7	-0,4		
						B.	0.10,9	86,9	+0,0		
Apr. 5	29	θ^1 Arietis	8.34.29,5	8.33.39,2	250.45	A.	3.56,0	22,3	-3,4	250.49.39,40	+1.56.9,05
	30	Comet	8.39.21,8	8.38.31,5	252.40	B.	3.33,1	90,4	+0,4	252.45.48,45	
						A.	4.62,4	24,6	-4,3		
						B.	4.46,0	87,7	+0,5		
	31	θ^1 Arietis	8.43.45,7	8.42.55,4	250.45	A.	3.28,0	22,3	-3,0	250.49.11,40	+1.56.2,45
	32	Comet	8.48.40,8	8.47.50,5	252.40	B.	3.4,8	90,4	+0,3	252.45.13,85	
						A.	4.27,9	24,6	-3,9		
						B.	4.11,0	87,7	+0,4		
	33	Comet	8.21.15,3	8.20.19,9							-6.39,10
	34	ψ Arietis	8.26.5,0	8.25.9,6		U.	88,041				
	35	Comet	8.32.40,0	8.31.44,6							-6.44,81
	36	ψ Arietis	8.37.27,3	8.36.31,9		U.	87,870				
Apr. 6	37	Comet	8.39.9,8	8.38.14,4	252.50	A.	1.49,8	23,7	-1,5	252.52.33,75	-6.39,95
	38	ψ Arietis	8.43.56,4	8.43.0,9	252.55	B.	1.28,1	87,3	+0,1	252.59.13,70	
						A.	3.29,2	24,3	-3,0		
						B.	3.10,0	86,6	+0,3		
	39	Comet	8.45.34,2	8.44.38,7	252.50	A.	1.30,0	23,7	-1,3	252.52.14,40	-6.37,15
	40	ψ Arietis	8.50.19,5	8.49.24,0	252.55	B.	1.9,0	87,3	+0,1	252.58.51,55	
						A.	3.6,2	24,3	-2,7		
						B.	2.48,4	86,6	+0,3		
	41	Comet	8.52.39,0	8.51.43,5	252.50	A.	1.1,4	23,7	-0,9	252.51.46,60	-6.28,85
	42	ψ Arietis	8.57.24,4	8.56.28,9	252.55	B.	0.41,6	87,3	+0,1	252.58.15,45	
						A.	2.29,6	24,3	-2,1		
						B.	2.12,3	86,6	+0,2		
Apr. 6	43	Comet	9.29.5,2	9.28.9,6	252.45	A.	0.30,3	24,7	-0,4	252.46.17,75	
						B.	0.14,0	86,9	+0,0		
	44	Comet	8.36.51,0	8.35.49,9							+3.21,04
	45	ψ Arietis	8.38.39,8	8.37.38,7		L.	15,910				
	46	Comet	8.39.41,2	8.38.40,1							+3.24,01
	47	ψ Arietis	8.41.29,5	8.40.28,4		L.	16,026				
Apr. 6	48	Comet	8.42.15,2	8.41.14,1							+3.26,51
	49	ψ Arietis	8.44.3,4	8.43.2,3		L.	16,074				

Graduated face of Declination Circle West. Coincidence reading of U at the first wire = 99°,990. One micrometer revolution = 33",400.

Correction for Run of A = -4",3. For Run of B = +0",5.

N^{os}. 23—32. In the first set the star was bisected at 1st wire, the comet at 2nd wire. All the rest on this day at 1st wire. The observations were all satisfactory except N^o. 30, which was interfered with by a cloud.

Approximate Hour angle West from the Meridian.	Approximate N.P.D. of Object.	Refraction in N.P.D.	Correction for Parallax in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Inter- polated N.P.D.	Observer.
<i>h. m. s.</i>	<i>° ' "</i>	<i>' "</i>	<i>"</i>	<i>° ' "</i>	<i>° ' "</i>	<i>h. m. s.</i>	<i>° ' "</i>	<i>"</i>	
6. 2. 3	70.49.52	2.54,41							
6. 2.15	72.46.33	3.15,52	-6,27	70.49.51,78	72.46.28,27	7.25.14,6	72.46.12,20	-16,07	G.
6. 9.31	70.49.52	3. 9,38							
	72.46.35	3.33,45	-6,32	.....	72.46.29,13	7.32.30,6	72.46.13,66	-15,47	G.
6.16.21	70.49.52	3.25,17							
	72.46.30	3.53,14	-6,36	.....	72.46.23,79	7.39.21,4	72.46.15,04	-8,75	G.
6.24.18	70.49.52	3.46,66							
	72.46.35	4.20,53	-6,42	.....	72.46.28,28	7.47.17,4	72.46.16,64	-11,64	G.
6.33.34	70.49.52	4.17,11							
	72.46.38	5. 0,48	-6,48	.....	72.46.31,12	7.56.34,9	72.46.18,53	-12,59	G.
6. 3. 0	72.53. 7	3.16,76	-6,46	72.59.47,67	72.53. 0,73	7.25.12,9	72.52.36,82	-23,91	G.
	72.59.48	3.18,14							
6.14.22	72.53. 1	3.46,71	-6,54	.....	72.52.54,52	7.36.35,7	72.52.40,66	-13,86	G.
	72.59.48	3.48,51							
6.20.51	72.53. 6	4. 7,67	-6,59	.....	72.52.59,03	7.43. 4,4	72.52.42,87	-16,16	G.
	72.59.48	4. 9,77							
6.27.14	72.53. 8	4.31,86	-6,63	.....	72.53. 1,37	7.49.27,7	72.52.45,03	-16,34	G.
	72.59.48	4.34,38							
6.34.19	72.53.16	5. 4,13	-6,68	.....	72.53. 9,11	7.56.31,3	72.52.47,44	-21,67	G.
	72.59.48	5. 7,16							
7.10.42	72.53.29	11.7,59	-6,92	.....	72.53.43,48	8.32.51,4	72.52.59,87	(-43,61)	G.
6.15.29	73. 3.10	3.50,15	-6,75	72.59.47,70	73. 3. 2,80	7.36.44,5	73. 2.36,81	-25,99	G.
	72.59.48	3.49,34							
6.18.19	73. 3.13	3.59,28	-6,77	.....	73. 3. 5,85	7.39.34,2	73. 2.38,20	-27,65	G.
	72.59.48	3.58,37							
6.20.53	73. 3.15	4. 8,05	-6,81	.....	73. 3. 8,36	7.42. 7,8	73. 2.39,45	-28,91	G.
	72.59.48	4. 7,09							

N^{os}. 33—42. These were all satisfactory observations. The use of micrometer U was given up after two sets, as so far from the centre of the field it moved stiffly.

N^o. 43. Worth nothing. The comet was excessively faint, and the star could not be taken. The adopted index error, derived from N^o. 42, is $-3'.34''.94$.

N^{os}. 44—63. These sets on the whole satisfactory, though the comet was somewhat faint, and bore very little illumination.

Day of Observation.	Reference No.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Pointer Reading.	Microscope or Micrometer.	Microscope or Micrometer Reading.	Correction for Error of Division.	Correction for Runs.	Concluded Reading of Declination Circle.	Apparent Excess of N.P.D. of Comet.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>0 ' "</i>		<i>' "</i> <i>"</i>	<i>"</i>	<i>"</i>	<i>0 ' "</i>	<i>0 ' "</i>
Apr. 6	50	Comet	8.45.11,6	8.44.10,5							
	51	ψ Arietis	8.46.59,0	8.45.57,9		L.	16,148				+ 3.28,98
	52	Comet	8.47.47,4	8.46.46,3							
	53	ψ Arietis	8.49.35,5	8.48.34,4		L.	16,144				+ 3.28,85
	54	Comet	8.50.51,2	8.49.50,1							
	55	ψ Arietis	8.52.38,8	8.51.37,7		L.	16,240				+ 3.32,06
	56	Comet	8.53.32,2	8.52.31,1							
Apr. 8	57	ψ Arietis	8.55.18,4	8.54.17,3		L.	16,268				+ 3.32,99
	58	Comet	8.58.4,3	8.57.3,2							
	59	ψ Arietis	8.59.50,0	8.58.48,9		L.	16,227				+ 3.31,62
	60	Comet	9.1.8,3	9.0.7,1							
	61	ψ Arietis	9.2.53,8	9.1.52,7		L.	16,300				+ 3.34,06
	62	Comet	9.3.51,4	9.2.50,3							
	63	ψ Arietis	9.5.38,0	9.4.36,8		L.	16,340				+ 3.35,40
Apr. 8	64	ψ Arietis	8.52.15,2	8.51.0,7	252.55	A.	2.55,9	24,3	-2,5	252.58.41,20	+ 35.31,80
	65	Comet	8.55.34,4	8.54.19,9	253.30	B.	2.37,8	86,6	+0,3	253.34.13,00	
	66	ψ Arietis	8.57.23,8	8.56.9,3	252.55	A.	3.27,3	23,5	-2,9	252.58.15,50	+ 35.33,15
	67	Comet	9.0.44,0	8.59.29,5	253.30	B.	3.7,4	90,4	+0,3	253.33.48,65	
	68	ψ Arietis	9.2.41,8	9.1.27,3	252.55	A.	2.29,0	24,3	-2,1	252.57.54,40	+ 35.28,55
	69	Comet	9.6.2,8	9.4.48,3	253.30	B.	2.13,0	86,6	+0,2	253.32.22,95	
	70	ψ Arietis	9.7.54,0	9.6.39,5	252.55	A.	3.2,5	23,5	-2,6	252.57.18,15	+ 35.27,05
Apr. 9	71	Comet	9.11.16,4	9.10.1,9	253.30	B.	2.43,2	90,4	+0,3	253.32.45,20	
	72	ψ Arietis	9.13.9,7	9.11.55,2	252.55	A.	1.32,3	24,3	-1,3	252.56.36,15	+ 35.33,75
	73	Comet	9.16.32,0	9.15.17,4	253.30	B.	1.14,3	86,6	+0,1	253.32.9,90	
	74	ω Arietis	8.55.24,4	8.54.8,9	255.35	A.	1.58,0	23,5	-1,7	255.37.22,10	- 1.40.23,20
	75	Comet	8.58.34,0	8.57.18,5	253.55	B.	1.40,0	90,4	+0,2	253.56.58,90	
	76	ω Arietis	9.0.26,7	8.59.11,2	255.35	A.	0.49,6	24,3	-0,7	255.36.43,85	- 1.40.8,05
	77	Comet	9.3.36,4	9.2.20,9	253.55	B.	0.32,4	86,6	+0,1	253.56.35,80	
Apr. 9	78	ω Arietis	9.5.53,5	9.4.37,9	255.35	A.	1.22,4	23,5	-1,2	255.35.58,60	- 1.39.54,60
	79	Comet	9.9.3,5	9.7.47,9	253.55	B.	1.3,4	90,4	+0,1	253.56.4,00	
	80	ω Arietis	9.12.7,3	9.10.51,7	255.30	A.	0.58,2	23,3	-0,8	255.34.47,10	- 1.39.18,90
	81	Comet	9.15.16,4	9.14.0,8	253.50	B.	0.45,2	81,5	+0,1	253.55.28,20	
						A.	0.48,9	23,7	-0,7		
						B.	0.34,3	85,3	+0,1		
						A.	0.12,6	23,3	-0,2		
						B.	0.0,0	81,5	+0,0		
						A.	0.15,8	23,7	-0,2		
						B.	0.3,4	85,3	+0,0		
						A.	4.4,0	23,8	-3,5		
						B.	3.46,0	83,5	+0,4		
						A.	4.44,7	24,7	-4,1		
						B.	4.25,0	85,7	+0,4		

Graduated face of Declination Circle West. Coincidence reading of L at the first wire = 9',891. One micrometer revolution = 33",400. Correction for Run of A = -4",3. For Run of B = +0",5.

Approximate Hour angle West from the Meridian.	Approximate N.P.D. of Object.	Refraction in N.P.D.	Correction for Parallax in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Inter- polated N.P.D.	Observer.
<i>h. m. s.</i>	<i>° ' "</i>	<i>' "</i>	<i>"</i>	<i>° ' "</i>	<i>° ' "</i>	<i>h. m. s.</i>	<i>° ' "</i>	<i>"</i>	
6.23.48	73. 3.18 72.59.48	4.18,80 4.17,70	-6,82	72.59.47,70	73. 3.10,96	7.45. 3,7	73. 2.40,91	-30,05	G.
6.26.25	73. 3.18 72.59.48	4.29,12 4.27,96	-6,83	.....	73. 3.10,88	7.47.39,1	73. 2.42,19	-28,69	G.
6.29.28	73. 3.21 72.59.48	4.42,14 4.40,81	-6,85	.....	73. 3.14,24	7.50.42,4	73. 2.43,69	-30,55	G.
6.32. 8	73. 3.22 72.59.48	4.54,41 4.53,01	-6,87	.....	73. 3.15,22	7.53.22,9	73. 2.45,02	-30,20	G.
6.36.39	73. 3.21 72.59.48	5.17,53 5.15,90	-6,90	.....	73. 3.14,05	7.57.54,2	73. 2.47,25	-26,80	G.
6.39.43	73. 3.24 72.59.48	5.35,08 5.33,30	-6,92	.....	73. 3.16,62	8. 0.57,7	73. 2.48,77	-27,85	G.
6.42.27	73. 3.26 72.59.48	5.53,08 5.50,28	-6,95	.....	73. 3.18,95	8. 3.40,4	73. 2.50,12	-28,83	G.
6.28.51	72.59.48 73.35.34	4.40,00 4.54,18	-7,32	72.59.47,75	73.35.26,41	7.47.19,6	73.34.49,07	-37,34	G.
6.34. 0	72.59.48 73.35.39	5. 4,10 5.21,80	-7,36	.....	73.35.31,24	7.52.28,4	73.34.53,49	-37,75	G.
6.39.18	72.59.48 73.35.36	5.33,06 5.52,76	-7,40	.....	73.35.28,60	7.57.46,3	73.34.58,03	-30,57	G.
6.44.30	72.59.48 73.35.38	6. 6,49 6.30,04	-7,44	.....	73.35.30,91	8. 2.59,0	73.35. 2,51	-28,40	G.
6.49.46	72.59.48 73.35.50	6.46,72 7.15,52	-7,47	.....	73.35.42,83	8. 8.13,7	73.35. 7,03	-35,80	G.
6.29.53	75.40. 1 73.58.39	6. 6,95 5. 8,63	-7,59	75.40. 0,98	73.58.31,87	7.46.21,8	73.57.48,58	-43,29	G.
6.34.55	75.40. 1 73.58.43	6.45,95 5.36,40	-7,63	.....	73.58.35,75	7.51.23,3	73.57.53,93	-41,82	G.
6.40.22	75.40. 1 73.58.41	7.36,99 6.11,40	-7,67	.....	73.58.33,12	7.56.49,5	73.57.59,72	-33,40	G.
6.46.36	75.40. 1 73.58.50	8.51,90 7. 0,03	-7,72	.....	73.58.42,49	8. 3. 1,4	73.58. 6,33	-36,16	G.

N^{os}. 64—73. Circumstances not favorable, the observations being made too late in the evening, and the comet too faint for sufficient illumination. The second set was the least satisfactory, the third was considered good.

N^{os}. 74—81. Not bad observations, though the comet was faint from its proximity to the horizon.

REMARKS ON THE APPEARANCE OF THE COMET.

March 5. THE comet was a conspicuous object in the Northumberland Telescope and appeared nearly round. Same remark on March 6. (C). The comet seems a mere patch of light [in 5-feet Telescope] equally bright in all parts. (G)

March 6. The comet is certainly brightest at its center, and seems altogether larger than Jupiter. (G)

March 23. The comet was at times quite bright and observed with ease. (G)

April 2. The comet was as bright as the star Piazzzi I. 257, both approaching the horizon. (C)

April 4. The comet was very bright, well defined, and as nearly as possible round. (C, with Northumberland Telescope. Power 100).

April 5. Distinct, bright, and very round. (C). Brightest at center: no determination of the light to a particular direction. (G)

April 6. The comet was not so bright and well defined as on the previous night, owing to haze in the atmosphere. I guess its apparent diameter to be nearly equal to one revolution of the micrometer, that is, 30". (G)

April 8. Not quite so bright, and of less apparent diameter, [probably on account of its being near the horizon] (C)

April 9. The apparent diameter of the comet is by guess 25". (C). I took the following measures of the comet's diameter with the Northumberland Telescope, by bringing the north and south limbs to a straight border equatoreally adjusted, and reading off the Sector microscope. Power 100. This method is liable to considerable inaccuracy on account of the change of the comet's position by refraction in the interval between the readings off.

Day.	Limb of Comet.	Microscope Reading.	Difference of Readings.	Apparent Diameter.
April 5	South	15,148	5,657	57,68
	North	9,491		
	North	9,746	4,798	48,92
	South	14,544		
	South	15,272	4,265	43,49
	North	11,007		
April 6	South	11,970	3,682	37,54
	North	8,288		

The third set on April 5 was very doubtful, the dome being before part of the object-glass. The best determination is probably the mean of the first and second, viz. 53",30, which, as the limbs were observed in a different order in the two sets, must be free in a great measure from the effect of refraction. The sky was not so clear on April 6 as on the preceding day.

DIFFERENCES
OF
RIGHT ASCENSION AND NORTH POLAR DISTANCE
OF
LAUGIER'S COMET
AND ADJACENT STARS,
OBSERVED WITH THE FIVE-FEET EQUATOREAL;
AND
CALCULATION OF GEOCENTRIC RIGHT ASCENSIONS AND
NORTH POLAR DISTANCES OF THE COMET.

1842.

280 OBSERVATIONS OF R.A. OF LAUGIER'S COMET WITH THE FIVE-FEET EQUATOREAL.

Day of Observation.	Reference Number.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Difference of R.A. uncorrected.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	<i>m. s.</i>	<i>h. m. s.</i>	<i>° ' "</i>
Nov. 24	1	A.S.C. 2236	21.49.46,2	21.49.21,71			105.48.15
	2	Comet	21.49.55,5	21.49.31,01	+0.9,30	2.39.20	105.49.12
	3	A.S.C. 2236	21.51.16,0	21.50.51,50			105.48.15
	4	Comet	21.51.26,0	21.51.1,50	+0.10,00	2.40.49	105.49.22
	5	A.S.C. 2236	21.52.26,2	21.52.1,69			105.48.15
	6	Comet	21.52.37,0	21.52.12,49	+0.10,80	2.42.0	105.49.31
	7	A.S.C. 2236	21.54.44,4	21.54.19,87			105.48.15
	8	Comet	21.54.55,4	21.54.30,87	+0.11,00	2.44.18	105.49.46
Nov. 25	9	Comet	21.44.10,8	21.43.34,29	-0.52,20	2.31.46	108.28.34
	10	ρ^2 Sagittarii	21.45.3,0	21.44.26,49			108.35.39
	11	Comet	21.46.32,0	21.45.55,47	-0.50,00	2.34.5	108.28.49
	12	ρ^2 Sagittarii	21.47.22,0	21.46.45,47			108.35.39
	13	Comet	22.22.43,0	22.22.6,15	-0.52,00	3.10.18	108.32.42
	14	ρ^2 Sagittarii	22.23.35,0	22.22.58,15			108.35.39
	15	Comet	22.25.10,0	22.24.33,12	-0.51,50	3.12.44	108.32.58
	16	ρ^2 Sagittarii	22.26.1,5	22.25.24,62			108.35.39
Nov. 26	17	Comet	21.47.10,0	21.46.19,81	-0.9,00	2.33.7	110.58.15
	18	* (a)	21.47.19,0	21.46.28,81			110.55.53
	19	Comet	21.47.57,0	21.47.6,80	-0.8,50	2.33.45	110.58.20
	20	* (a)	21.48.5,5	21.47.15,30			110.55.53
	21	Comet	21.48.38,0	21.47.47,79	-0.9,50	2.34.35	110.58.24
	22	* (a)	21.48.47,5	21.47.57,29			110.55.53
	23	Comet	21.49.21,0	21.48.30,79	-0.9,50	2.35.18	110.58.28
	24	* (a)	21.49.30,5	21.48.40,29			110.55.53
	25	Comet	21.50.10,5	21.49.20,28	-0.10,50	2.36.9	110.58.33
	26	* (a)	21.50.21,0	21.49.30,78			110.55.53
	27	Comet	21.51.53,0	21.51.2,76	-0.10,50	2.37.51	110.58.44
	28	* (a)	21.52.3,5	21.51.13,26			110.55.53

All the observations for difference of R.A. are noted times of disappearance of the comet and star at the straight border of the unilluminated field, the Instrument being stationary during each set of observations.

N^{os}. 1—8. The comet was very faint, and would bear no illumination, though the sky was quite clear. The observer thought its brightness was equal to that of a star of 8,9 magnitude in this Telescope. N^o. 8 was considered good.

Correction for Refraction in R.A.	Apparent Difference of R.A.	Correction for Parallax in R.A.	Assumed R.A. of \star .	Concluded R.A. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated R.A. of Comet.	Apparent Error of Interpolated R.A.	Observer.
s.	m. s.	s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	s.	
-6,34 -6,35	+0. 9,29	+0,42	19. 10. 2,55	19. 10. 12,26	5. 36. 4,5	19. 10. 12,88	+0,62	G.
-6,45 -6,46	+0. 9,99	+0,43	.....	19. 10. 12,97	5. 37. 34,7	19. 10. 12,93	-0,04	G.
-6,55 -6,56	+0. 10,79	+0,43	.....	19. 10. 13,77	5. 38. 45,5	19. 10. 13,01	-0,76	G.
-6,73 -6,74	+0. 10,99	+0,44	.....	19. 10. 13,98	5. 41. 3,5	19. 10. 13,17	-0,81	G.
-7,01 -7,07	-0. 52,14	+0,40	19. 12. 41,09	19. 11. 49,35	5. 26. 12,8	19. 11. 48,65	-0,70	G.
-7,22 -7,28	-0. 49,94	+0,40	.....	19. 11. 51,55	5. 28. 33,6	19. 11. 48,79	-2,76	G.
-12,04 -12,09	-0. 51,95	+0,48	.....	19. 11. 49,62	6. 4. 38,4	19. 11. 51,04	+1,42	C.
-12,52 -12,58	-0. 51,44	+0,48	.....	19. 11. 50,13	6. 7. 5,0	19. 11. 51,20	+1,07	C.
-8,95 -8,92	-0. 9,03	+0,39	19. 13. 22,40	19. 13. 13,76	5. 25. 2,0	19. 13. 12,08	-1,68	G.
-9,03 -9,00	-0. 8,53	+0,40	.....	19. 13. 14,27	5. 25. 48,9	19. 13. 12,12	-2,15	G.
-9,14 -9,11	-0. 9,53	+0,40	.....	19. 13. 13,27	5. 26. 29,7	19. 13. 12,16	-1,11	G.
-9,23 -9,20	-0. 9,53	+0,40	.....	19. 13. 13,27	5. 27. 12,6	19. 13. 12,20	-1,07	G.
-9,35 -9,31	-0. 10,54	+0,40	.....	19. 13. 12,26	5. 28. 2,0	19. 13. 12,24	-0,02	G.
-9,58 -9,54	-0. 10,54	+0,41	.....	19. 13. 12,27	5. 29. 44,2	19. 13. 12,33	+0,06	G.

N^{os}. 9—16. The observations were interfered with by clouds and are not very satisfactory. N^o. 9 was good; N^o. 11 doubtful on account of clouds.

N^{os}. 17—28. The comet was fainter than on the preceding nights.

N^{os}. 25 and 27 were marked 'good.'

Day of Observation.	Reference Number.	Object.	Time of Observation by Graham.	Corresponding Sidereal Time.	Microm.	Micrometer Reading.	Difference of Micrometer readings in arc.	Approximate Hour-angle West from the Meridian.	Approximate N.P.D. of Object.
1842.			<i>h. m. s.</i>	<i>h. m. s.</i>	"	<i>r.</i>	<i>' "</i>	<i>h. m. s.</i>	<i>° ' "</i>
Nov. 24	1 2	A.S.C. 2236 Comet	22 . 4 . 9	22 . 3 . 44,4	U.	14,700	+ 2 . 37,64	2 . 53 . 42	105 . 48 . 12 105 . 50 . 50
	3 4	A.S.C. 2236 Comet	22 . 9 . 53	22 . 9 . 28,3	U.	15,396	+ 3 . 0,89	2 . 59 . 26	105 . 48 . 12 105 . 51 . 13
	5 6	A.S.C. 2236 Comet	22 . 14 . 15	22 . 13 . 50,3	U.	17,032	+ 3 . 55,54	3 . 3 . 48	105 . 48 . 12 105 . 52 . 8
Nov. 25	7 8	Comet ρ^2 Sagittarii	21 . 52 . 21 21 . 53 . 22	21 . 51 . 44,4 21 . 52 . 45,4	U.	21,412	- 6 . 21,83	2 . 39 . 55 2 . 40 . 4	108 . 29 . 14 108 . 35 . 36
	9 10	Comet ρ^2 Sagittarii	22 . 14 . 56 22 . 15 . 56	22 . 14 . 19,2 22 . 15 . 19,2	U.	16,910	- 3 . 51,46	3 . 2 . 30 3 . 2 . 38	108 . 31 . 45 108 . 35 . 36
	11 12	Comet ρ^2 Sagittarii	22 . 18 . 58 22 . 20 . 3	22 . 18 . 21,2 22 . 19 . 26,2	U.	15,800	- 3 . 14,39	3 . 6 . 32 3 . 6 . 45	108 . 32 . 22 108 . 35 . 36
	13 14	Comet ρ^2 Sagittarii	22 . 28 . 32 22 . 29 . 35	22 . 27 . 55,1 22 . 28 . 58,1	U.	13,907	- 2 . 11,16	3 . 16 . 6 3 . 16 . 17	108 . 33 . 25 108 . 35 . 36
Nov. 26	15 16	Comet * (α)	21 . 55 . 22 21 . 55 . 35	21 . 54 . 31,7 21 . 54 . 44,7	L.	15,513	+ 3 . 7,27	2 . 41 . 19 2 . 41 . 22	110 . 58 . 58 110 . 55 . 51
	17 18	Comet * (α)	21 . 58 . 23 21 . 58 . 37	21 . 57 . 32,7 21 . 57 . 46,7	L.	16,320	+ 3 . 34,22	2 . 44 . 20 2 . 44 . 24	110 . 59 . 25 110 . 55 . 51

Each set of observations was made with the Instrument fixed. The comet and star were both bisected near the comb. Micrometer U is that of which the micrometer-head is uppermost when the Telescope looks southward. One micrometer revolution = $33''$,400.

N^{os}. 1—6. The comet had become more obscure, and these observations are consequently less satisfactory than those of R.A.

Correction for Refraction in N.P.D.	Apparent Difference of N.P.D.	Correction for Parallax in N.P.D.	Assumed N.P.D. of \star .	Concluded N.P.D. of Comet.	Greenwich Mean Solar Time of Observation of Comet.	Interpolated N.P.D. of Comet.	Apparent Error of Interpolated N.P.D.	Observer.
"	m. s.	s.	"	"	h. m. s.	"	s.	
+ 3.48,04 + 3.48,80	+ 2.38,40	- 13,69	105.48.12,2	105.50.36,9	5.50.15,6	105.50.49,3	+ 12,4	G.
+ 3.58,11 + 3.59,08	+ 3.1,86	- 13,64	.....	105.51.0,4	5.55.58,5	105.51.28,6	+ 28,2	G.
+ 4.6,60 + 4.7,93	+ 3.56,87	- 13,61	.....	105.51.55,5	6.0.19,8	105.51.58,6	+ 3,1	G.
+ 4.12,84 + 4.15,20	- 6.24,19	- 13,48	108.35.36,0	108.28.58,3	5.34.21,6	108.29.10,8	+ 12,5	G.
+ 5.6,95 + 5.9,10	- 3.53,61	- 13,28	.....	108.31.29,1	5.56.52,7	108.31.35,8	+ 6,7	G.
+ 5.20,11 + 5.22,39	- 3.16,67	- 13,24	.....	108.32.6,1	6.0.54,0	108.32.2,0	- 4,1	C.
+ 5.57,22 + 5.59,20	- 2.13,14	- 13,15	.....	108.33.9,7	6.10.26,4	108.33.3,5	- 6,2	C.
+ 5.22,36 + 5.20,78	+ 3.8,85	- 13,12	110.55.51,1	110.58.46,8	5.33.12,5	110.58.48,6	+ 1,8	G.
+ 5.31,42 + 5.29,64	+ 3.36,00	- 13,09	.....	110.59.14,0	5.36.13,0	110.59.6,8	- 8,2	G.

N^{os}. 7—14. Observed among clouds. When free of clouds the comet appeared brighter than on the preceding evening.

N^{os}. 15—18. The first comet observation was 'mere guess;' the other 'better.' A bank of clouds was near the comet, which eventually rose and stopped the observations.

MISCELLANEOUS OBSERVATIONS

MADE WITH

THE NORTHUMBERLAND EQUATOREAL
AND MURAL CIRCLE

IN THE YEAR 1842.

I. MICROMETER MEASURES OF JUPITER'S POLAR AND EQUATOREAL DIAMETERS.

JULY 14. 12¹/₂^h. The following measures of Jupiter's Polar and Equatoreal Diameters were taken with the double-wire micrometer of the Northumberland Telescope, between the sidereal times 19^h.50^m and 20^h.17^m. The two wires were applied simultaneously to the limbs, and after each measure were made to pass each other. When the wires were placed parallel to Jupiter's belts, the reading of the Position circle was 170°, the reading for coincidence with a parallel of declination being 178°.30'. Magnifying power, 280. Observer, C. The Planet was very badly defined.

POLAR DIAMETER.

N ^o . of Series.	Reading of Micrometer A.	Reading of Micrometer B.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>r</i>	"
1	11,655	11,020	2,686	45.58
2	6,249	11,020	2,720	46.16
3	12,691	10,000	2,702	45.85
4	7,272	10,000	2,717	46.11

EQUATOREAL DIAMETER.

1	12,860	10,000	2,871	48.72
2	7,121	10,000	2,868	48.67
3	12,874	10,000	2,885	48.96
4	7,148	10,000	2,841	48.21

The reading of A corresponding to the reading 10^r,000 of B, as inferred from the means of the readings of A for opposite limbs, is 9^r,989, which is adopted in the reduction of the observations. One micrometer revolution = 16^r,970.

July 14. 13^h, between the sidereal times 20^h.33^m and 20^h.45^m, I took the following measures of Jupiter's Equatoreal Diameter with the double-image eye-piece N^o. 10, power 420. The separation of the images was made to take place in the direction of Jupiter's belts, and the moveable image was brought into alternate contact with the limbs of the fixed image, so that the difference of consecutive readings measures twice the diameter.

N ^o . of Series.	Micrometer Reading.	Difference of Consecutive Readings.	Equatoreal Diameter in arc.
	<i>r</i>	<i>r</i>	"
1	8,568	7,185	46.36
2	1,383		
3	1,306	7,254	46.80
4	8,560		
5	8,543	7,115	45.91
6	1,428	7,141	46.07
7	8,569	7,170	46.26
8	1,399		

N^{os}. 2 and 3 and N^{os} 4 and 5 are repetitions of contact with the same limb. One Micrometer revolution = 12^r,904.

On the same night, between the sidereal times 20^h.45^m and 20^h.56^m, I took, in a similar manner, measures of Jupiter's Polar Diameter with the same eye-piece, after turning the Position Circle through 90°. Neither these observations nor those of the Equatoreal Diameter were considered good, the two images being badly defined and not equally bright.

N ^o . of Series.	Micrometer Reading.	Difference of Consecutive Readings.	Polar Diameter in arc.
1	1,620	6,722	43,369
2	8,342	6,687	43,144
3	1,655	6,733	43,440
4	8,388	6,723	43,376
5	1,665	6,666	43,009
6	8,331	6,659	42,964
7	1,672		

One micrometer revolution = $12''.904$.

COMPARISON WITH THE DIAMETERS IN THE NAUTICAL ALMANAC.

Mean Time of Observation.	Diameter of Jupiter.	N ^o . of Measures.	Mean of Measures.	Diameter in Nautical Almanac.	Excess of Nautical Almanac.
<i>h</i>			<i>"</i>	<i>"</i>	<i>"</i>
July 14. 12	Polar.....	4	46,14	44,57	- 1,57
12	Equatoreal	4	48,64	48,08	- 0,56
13	Equatoreal*.....	5	46,33	48,08	+ 1,75
13	Polar*	6	43,47	44,57	+ 1,10

* Measured by the double-image micrometer.

The mean of the first set of measures of the Polar Diameter is corrected by $+0''.21$ for refraction, and that of the second set by $+0''.25$. The corrections to the Equatoreal Diameter for refraction and for defect of illumination, are not of sensible amount. It will be seen that the diameters given by the double-wire micrometer are considerably larger than those given by the double-image micrometer.

II. MICROMETER MEASURES OF SATURN'S EQUATOREAL AND POLAR DIAMETERS.

July 29. 11^h , between the sidereal times $19^h.27^m$ and $20^h.0^m$, I measured as follows the Equatoreal Diameter of Saturn with the double-wire micrometer of the Northumberland Telescope. The reading of the Position Circle was $185^\circ.49'$ when the wires were parallel to the longest Diameter of Saturn's Ring, the reading for coincidence with a parallel of declination being $178^\circ.30'$. The reading of micrometer B was constantly $10^r,000$. Magnifying power, 280. The Planet was very unsteady.

N ^o . of Series.	Reading of Micrometer A.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>"</i>
1	11,060	1,072	18,19
2	8,945	1,043	17,70
3	11,052	1,064	18,06
4	8,878	1,110	18,84
5	11,065	1,077	18,28
6	8,900	1,088	18,46
7	11,067	1,079	18,31
8	8,935	1,053	17,87

The mean of all the readings of micrometer A is $9^r,988$, which is adopted for the reading of A corresponding to the reading $10^r,000$ of B. One micrometer revolution = $16''.970$.

Aug. 1, between the mean times $10^h.30^m$ and $11^h.10^m$, I took the following measures of Saturn's Polar Diameter with the double-wire micrometer of the Northumberland Telescope. Power, 280. Reading of Position Circle, $185^\circ.50'$, the wires being parallel to the longest diameter of the Ring. The measures are uncertain, as the South Limb of the Planet was hid by the Ring. The quantity cut off was allowed for in the observations by noticing how much of the Ring was intercepted by the North Limb, and placing the N.L. on one wire, and the centre of the Ball as nearly as possible mid-way between the wires. The Planet was pretty steady at first, but became unsteady before the measures were finished. Reading of micrometer B, $10^r,000$.

N ^o . of Series.	Reading of Micrometer A.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>"</i>
1	10,932	0,953	16,17
2	9,044	0,935	15,87
3	10,895	0,916	15,55
4	9,070	0,909	15,43
5	10,892	0,913	15,49
6	9,062	0,917	15,56
7	10,938	0,959	16,28
8	9,022	0,957	16,24
9	10,913	0,934	15,85
10	9,014	0,965	16,38
11	10,924	0,945	16,04
12	9,037	0,942	15,99

The mean of the readings of A is 9^r,979, which is adopted for coincidence reading. One micrometer revolution = 16^r,970.

COMPARISON WITH THE DIAMETERS IN THE NAUTICAL ALMANAC.

Mean Time of Observation.	Diameter of Saturn.	N ^o . of Observations.	Mean of Diameters by Observation.	Diameter in Nautical Almanac.	Excess of Nautical Almanac.
<i>h.</i>			<i>"</i>	<i>"</i>	<i>"</i>
July 29. 11	Equatoreal	8	18,21	17,73	- 0,48
Aug. 1. 11	Polar.....	12	15,98	16,40	+ 0,42

The Polar Diameter has been corrected by + 0^r,07 for refraction.

The Diameters of the Nautical Almanac are those given by Bessel in the *Astronomische Nachrichten*, N^o. 189. The Equatoreal Diameter, according to Struve's measures in the Memoirs of the Astronomical Society, Vol. III. p. 301, is 18^r,75, which exceeds that above by 0^r,54.

III. MICROMETER MEASURES OF THE DIAMETERS OF SATURN'S RINGS.

July 15. 10^h, between the sidereal times 17^h. 50^m and 18^h. 15^m, I measured the longest diameter of Saturn's exterior Ring with the double-wire micrometer of the Northumberland Telescope. Reading of Position Circle 95^o. 30'. Reading of micrometer B, 10^r,000. Magnifying power, 280. Saturn was well seen.

N ^o . of Series.	Reading of Micrometer A.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>"</i>
1	12,563	2,590	43,95
2	7,447	2,526	42,87
3	12,502	2,529	42,92
4	7,379	2,594	44,02
5	12,530	2,557	43,39
6	7,430	2,543	43,16
7	12,520	2,547	43,22
8	7,420	2,553	43,33
9	12,552	2,579	43,76

The coincidence reading of A, derived from all the readings of A except the first, is 9^r,973, which is adopted. One micrometer revolution = 16^r,970.

July 15. 10^h, between the sidereal times 18^h. 35^m and 19^h. 45^m, I measured the longest diameter of Saturn's exterior Ring with the double-image eye-piece N^o. 10, power 420. A wire across the centre of the field, adjustable as to its angle of position, was made to coincide with the direction of separation of the images of a star, and was then placed by the Position Circle parallel to the longest diameter of the Ring. The images of the Ring were not distinct, the moveable one being fainter and much more coloured than the other.

N ^o . of Series.	Micrometer Reading.	Difference of Consecutive Readings.	Diameter in arc.
1	8,242		"
2	1,862	6,380	41,16
3	8,121	6,259	40,38
4	1,865	6,256	40,36
5	8,108	6,243	40,28
6	1,840	6,268	40,44
7	8,180		
8	1,833	6,347	40,95
9	8,152	6,319	40,77
10	1,826	6,326	40,82
11	8,172	6,346	40,95
12	1,873	6,299	40,64
13	8,112	6,239	40,25

One micrometer revolution = 12'',904.

N^{os}. 6 and 7 are not compared with each other, because after N^o. 6 the lamp-light was entirely excluded. This appears to have had some effect on the measures, for the mean of the first six is 40'',52, and the mean of the remainder 40'',73.

July 29. 11^h, between the sidereal times 20^h.0^m and 20^h.24^m, I measured the interior Diameter of Saturn's interior Ring with the double-wire micrometer of the Northumberland Telescope. The Planet was very unsteady. Magnifying power, 280. Reading of B, 10^r,000.

N ^o . of Series.	Reading of Micrometer A.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>''</i>
1	8,357	1,603	27,25
2	11,519	1,559	26,50
3	8,410	1,550	26,35
4	11,512	1,552	26,38
5	8,423	1,537	26,12
6	11,530	1,570	26,69
7	8,408	1,552	26,38
8	11,520	1,560	26,52

The adopted coincidence reading, derived from the observations, is 9^r,960. One micrometer revolution = 16'',970.

Sept. 12. 7^h. I took measures with the double-wire micrometer for determining the diameter of the Division between Saturn's Rings. The night was so bad and the circumstances altogether so unfavorable, that the measures were discontinued. Those taken are entitled to very little confidence. Magnifying power, 475.

The micrometer wires were at first placed at the extremity of the diameter of the Division and the opposite extremity of the diameter of the outer Ring, so as to measure half the sum of the two diameters. Reading of B, 10^r,000.

N ^o . of Series.	Reading of Micrometer A.	Interval in Microm. Revolutions.	Interval in arc.
	<i>r</i>	<i>r</i>	<i>''</i>
1	12,088	2,129	36,13
2	12,091	2,132	36,18
3	7,848	2,111	35,82
4	7,807	2,152	36,52

The following are measures of the diameter of the Division.

N ^o . of Series.	Reading of Micrometer A.	Reading of Micrometer B.	Diameter in Microm. Revolutions.	Diameter in arc.
	<i>r</i>	<i>r</i>	<i>r</i>	<i>''</i>
1	7,466	10,460	2,033	34,50
2	11,161	10,824	2,026	34,38

The coincidence reading of A corresponding to the reading 10^r,000 of B, adopted for these and the preceding measures, is 9^r,959. One micrometer revolution = 16'',970.

COMPARISON WITH STRUVE'S MEASURES.

Mean Time of Observation.	Interval measured.	N ^o . of Measures.	Mean of Measures.	Measure by Struve.	Excess of latter.
^h			"	"	"
July 15. 10 ...	Outer diameter of outer Ring ...	9	43,41*	42,15	- 1,26
15. 10 ...	Outer diameter of outer Ring† ..	12	40,64*	42,15	+ 1,51
29. 11 ...	Inner diameter of inner Ring ...	8	26,52	27,80	+ 1,28
Sept. 12. 7 ...	{ Diameter of the division be- tween the rings. }	2	34,44	34,29|| .....	- 0,15
12. 7 ...	{ Diameter of division + the breadth of outer Ring. }	4	36,16	36,85|| .....	+ 0,69

* Correction for refraction = + 0'',01.

† Measured with the double-image micrometer.

|| These are calculated from the mean between Struve's measures of the inner diameter of the outer Ring and the outer diameter of the inner Ring.

The diameter of the outer Ring on July 15, derived from the measure given by Bessel in the *Astronomische Nachrichten* N^o. 189, is 41'',33, which is the value in the Nautical Almanac. The above measures by Struve are calculated from those given in the Memoirs of the Astronomical Society, Vol. III. p. 301. It is observable that the double-wire micrometer makes the outer diameter of the outer ring greater, and the inner diameter of the inner ring, less than Struve's, while the mean between the measures of the former diameter by the double-wire and double-image micrometers is nearly coincident with Struve's.

IV. OBSERVATIONS FOR REFRACTION AT SMALL ALTITUDES.

The following observations of stars below the Pole were taken with the Mural circle for the purpose of ascertaining the amount of refraction at small altitudes above the horizon. The refractions deduced from the observations are compared with refractions calculated by Bessel's Tables. The true Zenith Distances are derived from the observations in 1842 of the same stars above the Pole.

Day of Observation	Dec. 23	.....	Dec. 27	.....	Dec. 27
Star	α Lyræ SP.	.....	α Lyræ SP.	.....	Capella SP.
Reading of Microscope A	158 . 3 . 48,6	.....	158 . 3 . 55,6	.....	164 . 58 . 61,0
B	43,6	.....	50,1	.....	56,7
C	47,0	.....	54,2	.....	60,1
D	43,8	.....	52,2	.....	57,5
E	45,7	.....	51,9	.....	59,0
F	49,4	.....	56,9	.....	61,5
Correction for Runs	- 0,3	.....	- 1,2	.....	- 1,2
Mean of Microscope Readings	158 . 3 . 46,30	.....	158 . 3 . 53,28	.....	164 . 58 . 59,10
Corr. for Microm. Reading 9'',247	+ 9,50	9'',240	+ 9,43	.....
Correction to Meridian*	- 0,48	.....		.....
Concluded Circle Reading	158 . 3 . 55,32	.....	158 . 4 . 2,71	.....	164 . 58 . 59,10
Zenith Point	246 . 49 . 31,75	.....	246 . 49 . 31,75	.....	246 . 49 . 31,75
Apparent Zenith Distance	88 . 45 . 36,43	.....	88 . 45 . 29,04	.....	81 . 50 . 32,65
True Zenith Distance	89 . 8 . 39,39	.....	89 . 8 . 40,61	.....	81 . 57 . 9,84
Refraction from the Observation	23 . 2,96	.....	23 . 11,57	.....	6 . 37,19
Calculated Refraction	23 . 26,76	.....	23 . 33,64	.....	6 . 39,93
Excess of calculated Refraction	+ 23,80	.....	+ 22'',07	.....	+ 2'',74
* Taken at the 5th wire. The star vibrated very much in the vertical direction, and on account of its large disc was placed <i>between</i> the micrometer and fixed wires. Barometer, 29 ⁱⁿ ,602. Attached Thermometer, 39°,5. Free Thermometer, 35°,3.		Placed between the micro- meter and fixed wires. Barometer 29 ⁱⁿ ,750. Attached Thermometer 39°,0. Free Thermometer 35°,2.		Barometer 30 ⁱⁿ ,064. Attached Thermometer 40°,2. Free Thermometer 36°,0.	

OCCULTATIONS
OF
FIXED STARS BY THE MOON,
WITH
THE EQUATIONS GIVEN BY THE CALCULATION
OF THE OCCULTATIONS.

1842.

Day of Observation 1842.	Ref. No.	Phenomenon.	Moon's Limb.	Clock or Chronom.	Instrument.	Time noted.	Sidereal Time.	Greenwich Mean Solar Time.	Observer.
Jan. 23	1	Disappearance of 125 Tauri	Dark	G.	5-feet Equatoreal	<i>h. m. s.</i> 3.46.26,1	<i>h. m. s.</i> 3.47.31,50	<i>h. m. s.</i> 7.36.14,60	G.
Mar. 22	2	Disappearance of σ^2 Cancr	Dark	G.	5-feet Equatoreal	7.48.31,4	7.48.43,02	7.48.43,90	G.
June 13	3	Disappearance of π Leonis	Dark	X.	Northumb. Equat.	12.40.12,5	12.39.11,30	7.12. 4,10	C.
...	4	Reappearance of π Leonis	Bright	X. G.	Northumb. Equat. 5-feet Equatoreal	13.43.34,5 13.43.25,0	13.42.33,39 13.42.44,76	8.15.15,81 8.15.27,15	C. G.
15	5	Disappearance of B Virginis	Dark	G. X.	5-feet Equatoreal Northumb. Equat.	16.50. 7,7 16.50.15,2	16.49.14,06 16.49.15,31	11.13.34,06 11.13.35,31	C. G.
26	6	Disappearance of λ Capricorni	Bright	G.	5-feet Equatoreal	21.37.52,8	21.35.35,34	15.15.53,40	G.
July 30	7	Disappearance of μ Arietis	Bright	G.	5-feet Equatoreal	20. 9.45,0	20. 6.50,93	11.33.42,53	C.
Sept. 12	8	Disappearance of λ Sagittarii	Dark	G.	5-feet Equatoreal	21.30.36,2	21.29.55,15	10. 3.33,15	G.
26	9	Disappearance of B Tauri	Bright	G.	5-feet Equatoreal	22. 9.50,6	22. 9.35,53	9.48. 4,33	G.
...	10	Reappearance of B Tauri	Dark	G.	5-feet Equatoreal	23. 2.13,0	23. 1.57,63	10.40.17,85	C.
Nov. 12	11	Disappearance of κ^2 Piscium	Dark	G. U.	5-feet Equatoreal Northumb. Equat.	1. 1.17,8 0.52. 2,7	0.51.33,41 0.51.33,91	9.24.47,98 9.24.48,48	C. G.
...	12	Disappearance of κ^1 Piscium	Dark	G. U.	5-feet Equatoreal Northumb. Equat.	1.16.59,9 1.17.44,2	1.17.15,02 1.17.14,87	9.50.25,39 9.50.25,24	C. G.
...	13	Reappearance of κ^1 Piscium	Bright	G.	5-feet Equatoreal	1.41.19,5	1.41.34,53	10.14.40,91	C.
Dec. 14	14	Disappearance of 47 Arietis	Dark	G.	5-feet Equatoreal	22.24.59,2	22.24.44,92	4.52.34,39	C.
19	15	Reappearance of ζ Cancr	Dark	G.	5-feet Equatoreal	12.25.47,0	12.24. 9,36	18.30. 1,76	C.

Nº. 1. Very satisfactory.

Nº. 2. Excellent observation.

Nº. 3. The star was faint on account of day-light, but the observation was not doubtful.

Nº. 4. Hazy cloud made the star faint. 'Certainly not 1^s late.' (C). 'Pretty good.' (G). It seems probable that the reappearance occurred before the star was seen in the Telescope of the 5-feet equatoreal.

Nº. 5. The Moon low and star faint. A misty cloud coming over, I felt doubtful whether this or the Moon caused the star to disappear. 'Star faint, but observation pretty accurate.' (G).

Nº. 6. Doubtful observation, the star becoming excessively faint as it approached the limb.

Nº. 7. Star so faint when near the limb, that the disappearance is doubtful to 2 or 3 seconds.

Nº. 8. 'Pretty good.' The star was faint from being low and clouded.

Nº. 9. Not satisfactory: great vibration.

Nº. 10. A little uncertain, the star not being looked for exactly at the right place.

Nº. 11. 'Very exact.' (C). 'Good.' (G).

Nº. 12. Beautiful observations. The star disappeared at a dark indenture just at the N.L.

Nº. 13. The time is doubtful: the star appeared before it was expected.

Nºs. 14 and 15. Both 'good.'

Disappearance of 125 Tauri, Jan. 23, $7^h.36^m.14^s.60 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in Arc	$56.52.52.50 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$81.59.42.15 + 0.6716 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$63.32.13.90 + 0.0110 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$59.47.21 \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$16.17.50 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$82.29.50.25 + e''$
Star's N.P.D.	$64.11.44.50 + f.$

Moon's apparent Right Ascension in arc	$82.17.17.68 + 0.5151t + 0.6789\tau + 1.0109x - 0.0026y + 1.0670m$
Moon's apparent N.P.D.	$63.59.56.91 - 0.0181t + 0.0125\tau + 0.0020x + 1.0149y + 1.6890m$
Moon's apparent Semidiameter.....	$16.32.09 + 0.9921n + 0.0003t.$

Apparent Distance of Star from Moon's centre:

$$16'.19'',27 + 0'',6219 \times \{ + e - 0,5151t - 0,6789\tau - 1,0109x + 0,0026y - 1,0670m \}$$

$$- 0'',7220 \times \{ - 0,0181t + 0,0125\tau + 0,0020x + 1,0149y + 1,6890m \}$$

$$+ 0'',7232 \times f.$$

Final Equation :

$$+ 12'',82 = + 0,6219e + 0,7232f - 0,6301x - 0,7311y - 0,3076t - 0,4312\tau - 1,8830m - 0,9921n.$$

Disappearance of σ^2 Cancri, March 22, $7^h.48^m.43^s.90 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$117.10.45.30 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc.....	$131.45.51.75 + 0.5974 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$73.8.39.29 + 0.2121 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$60.15.39 \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter.....	$16.25.19 \times (1 + 0.001 n)$
Star's Right Ascension in arc	$132.11.49.35 + e''$
Star's N.P.D.	$73.49.8.40 + f.$

Moon's apparent Right Ascension in arc	$131.55.42.23 + 0.4388t + 0.6038\tau + 1.0110x - 0.0009y + 0.5970m$
Moon's apparent N.P.D.	$73.44.8.03 + 0.2039t + 0.2156\tau + 0.0008x + 1.0141y + 2.1589m$
Moon's apparent Semidiameter.....	$16.39.09 + 0.9991n + 0.0002t.$

Apparent Distance of Star from Moon's centre:

$$16'.15'',98 + 0'',9137 \times \{ e - 0,4388t - 0,6038\tau - 1,0001x + 0,0009y - 0,5970m \}$$

$$- 0'',3072 \times \{ + 0,2039t + 0,2156\tau + 0,0008x + 1,0141y + 2,1589m \}$$

$$+ 0'',3084 \times f.$$

Final Equation :

$$+ 23'',11 = + 0,9137e + 0,3084f - 0,9240x - 0,3107y - 0,4637t - 0,6179\tau - 1,2087m - 0,9991n.$$

Disappearance of π Leonis, June 13, $7^h.12^m.4^s.10 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$189^{\circ}.47'.49''.50 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$148^{\circ}.8'.57''.30 + 0,5536 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$80^{\circ}.22'.16''.21 + 0,2433 \times (t + \tau) + y''$
Moon's Horizontal Equatoreal Parallax	$59'.33,40 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16'.13,72 \times (1 + 0,001 n)$
Star's Right Ascension in arc.....	$147^{\circ}.58'.23,10 + e''$
Star's N.P.D.	$81^{\circ}.12'.9,50 + f.$
Moon's apparent Right Ascension in arc	$147^{\circ}.44'.6''.49 + 0,4369t + 0,5584\tau + 1,0081x + 0,0012y - 1,5029m$
Moon's apparent N.P.D.	$81^{\circ}.4'.19,53 + 0,2620t + 0,2452\tau - 0,0011x + 1,0101y + 2,5497m$
Moon's apparent Semidiameter.....	$16'.23,57 + 0,9836n - 0,0005t.$

Apparent Distance of Star from Moon's centre:

$$16'.8'',11 + 0'',8640 \times \{ + e - 0,4369t - 0,5584\tau - 1,0081x - 0,0012y + 1,5029m \} \\ - 0'',4852 \times \{ + 0,2620t + 0,2452\tau + 0,0011x + 1,0101y + 2,5497m \} \\ + 0'',4858 \times f.$$

Final Equation :

$$+ 15'',46 = + 0,8640e + 0,4858f - 0,8705x - 0,4911y - 0,5041t - 0,6014\tau + 0,0614m - 0,9836n.$$

Reappearance of π Leonis, June 13, $8^h.15^m.15^s.81 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$205^{\circ}.38'.20''.85 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$148^{\circ}.43'.54,30 + 0,5526 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$80^{\circ}.37'.40,31 + 0,2441 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$59'.33,01 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16'.13,61 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$147^{\circ}.58'.23,10 + e''$
Star's N.P.D.	$81^{\circ}.12'.9,50 + f.$
Moon's apparent Right Ascension in arc	$148^{\circ}.12'.40''.60 + 0,4684t + 0,5562\tau + 1,0058x + 0,0015y - 1,8847m$
Moon's apparent N.P.D.	$81^{\circ}.21'.0,14 + 0,2656t - 0,2452\tau - 0,0014x + 1,0078y + 2,6215m$
Moon's apparent Semidiameter.....	$16'.21,30 + 0,9813n - 0,0006t.$

Apparent Distance of Star from Moon's centre:

$$16'.39'',98 + 0'',8379 \times \{ - e + 0,4684t + 0,5562\tau + 1,0058x + 0,0015y - 1,8847m \} \\ + 0'',5311 \times \{ + 0,2656t + 0,2452\tau - 0,0014x + 1,0078y + 2,6215m \} \\ - 0'',5305 \times f.$$

Final Equation :

$$- 18'',68 = - 0,8379e - 0,5305f + 0,8420x + 0,5365y + 0,5341t + 0,5963\tau - 0,1869m - 0,9813n.$$

Disappearance of B Virginis, June 15, $11^h.13^m.34^s.06 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$252^\circ.18'.30''.90 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$176^\circ.6'.10.80 + 0,5298 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$93^\circ.33'.15.40 + 0,2528 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$59'.1,24 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$16'.4,97 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$175^\circ.44'.54,75 + e''$
Star's N.P.D.	$94^\circ.27'.31,00 + f.$
Moon's apparent Right Ascension in arc	$175^\circ.30'.49,98 + 0,4945 t + 0,5309 \tau + 1,0024 x - 0,0006 y - 2,1265 m$
Moon's apparent N.P.D.	$94^\circ.20'.11,51 + 0,2419 t + 0,2536 \tau + 0,0008 x + 1,0014 y + 2,8195 m$
Moon's apparent Semidiameter	$16'.6,44 + 0,9664 n - 0,0007 t.$

Apparent Distance of Star from Moon's centre

$$15'.50'',05 + 0'',8841 \times \{ + e - 0,4945 t - 0,5309 \tau - 1,0024 x + 0,0006 y + 2,1265 m \} \\ - 0'',4627 \times \{ + 0,2419 t + 0,2536 \tau + 0,0008 x + 1,0014 y + 2,8195 m \} \\ + 0'',4625 \times f.$$

Final Equation :

$$+ 16'',39 = 0,8841 e + 0,4625 f - 0,8866 x - 0,4628 y - 0,5484 t - 0,5867 \tau + 0,5755 m - 0,9664 n.$$

Disappearance of λ Capricorni, June 26, $15^h.15^m.53^s.40 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$323^\circ.53'.50''.10 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$324^\circ.15'.42,00 + 0,4648 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$101^\circ.15'.41,36 - 0,1967 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$54'.15,75 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$14'.47,20 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$324^\circ.31'.17,40 + e''$
Star's N.P.D.	$102^\circ.5'.11,60 + f.$
Moon's apparent Right Ascension in arc	$324^\circ.15'.55,09 + 0,3193 t + 0,4694 \tau + 1,0100 x - 0,0000 y + 0,0132 m$
Moon's apparent N.P.D.	$102^\circ.4'.17,26 - 0,1979 t - 0,1981 \tau + 0,0000 x + 1,0069 y + 2,9430 m$
Moon's apparent Semidiameter	$14'.53,44 + 0,8934 n + 0,0000 t.$

Apparent Distance of Star from Moon's centre :

$$15'.3'',52 + 0'',9763 \times \{ + e - 0,3193 t - 0,4694 \tau - 1,0100 x + 0,0000 y - 0,0132 m \} \\ - 0'',0606 \times \{ - 0,1979 t - 0,1981 \tau + 0,0000 x + 1,0069 y + 2,9430 m \} \\ + 0'',0596 \times f.$$

Final Equation :

$$- 10'',08 = + 0,9763 e + 0,0596 f - 0,9861 x - 0,0610 y - 0,2997 t - 0,4463 \tau - 0,1912 m - 0,8934 n.$$

Disappearance of μ Arietis, July 30, $11^h.33^m.42^s.53 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$301^{\circ}.42'.43.95 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$37^{\circ}.30'.43.05 + 0.5326 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69^{\circ}.52'.48.47 - 0.1492 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$55'.48.20 \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15'.12.38 \times (1 + 0.001 n)$
Star's Right Ascension in arc.....	$38^{\circ}.22'.32.10 + e''$
Star's N.P.D.	$70^{\circ}.39'.37.00 + f.$
Moon's apparent Right Ascension in arc	$38^{\circ}.6'.58.72 + 0.5502t + 0.5326\tau + 0.9988x - 0.0039y + 2.1732m$
Moon's apparent N.P.D.....	$70^{\circ}.35'.25.25 - 0.1976t - 0.1479\tau + 0.0033x + 1.0032y + 2.5688m$
Moon's apparent Semidiameter.....	$15'.15.42 + 0.9154n + 0.0006t.$

Apparent Distance of Star from Moon's centre:

$$15'.15''.80 + 0'',9072 \times \{ + e - 0,5502 t - 0,5326 \tau - 0,9988 x + 0,0039 y - 2,1732 m \} \\ - 0'',2742 \times \{ - 0,1976 t - 0,1479 \tau + 0,0033 x + 1,0032 y + 2,5688 m \} \\ + 0'',2756 \times f.$$

Final Equation:

$$- 0'',38 = + 0,9072 e + 0,2756 f - 0,9070 x - 0,2715 y - 0,4456 t - 0,4426 \tau - 2,6759 m - 0,9154 n.$$

Disappearance of λ Sagittarii, Sept. 12, $10^h.3^m.33^s.15 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$322^{\circ}.28'.47.25 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$274^{\circ}.45'.38.85 + 0.5686 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$114^{\circ}.40'.51.32 - 0.0619 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$55'.40.53 \times (1 + 0.001 m)$
Moon's Geocentric Semidiameter	$15'.10.28 \times (1 + 0.001 n)$
Star's Right Ascension in arc.....	$274^{\circ}.34'.21.45 + e''$
Star's N.P.D.	$115^{\circ}.30'.3.80 + f.$
Moon's apparent Right Ascension in arc	$274^{\circ}.17'.36.52 + 0.4626t + 0.5730\tau + 1.0074x - 0.0038y - 1.6948m$
Moon's apparent N.P.D.....	$115^{\circ}.30'.14.57 - 0.1081t - 0.0601\tau + 0.0032x + 1.0005y + 2.9622m$
Moon's apparent Semidiameter.....	$15'.10.85 + 0.9109n - 0.0004t.$

Apparent Distance of Star from Moon's centre:

$$15'.7''.08 + 0'',9026 \times \{ + e - 0,4626 t - 0,5730 \tau - 1,0074 x + 0,0038 y + 1,6948 m \} \\ + 0'',0109 \times \{ - 0,1081 t - 0,0601 \tau + 0,0032 x + 1,0005 y + 2,9622 m \} \\ - 0'',0129 \times f.$$

Final Equation:

$$+ 3'',77 = + 0,9026 e - 0,0129 f - 0,9092 x + 0,0143 y - 0,4183 t - 0,5179 \tau + 1,5620 m - 0,9109 n.$$

Disappearance of B Tauri, Sept. 26, $9^h.48^m.4^s.33 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$332.23.52,95 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$83.57.55,35 + 0,6056 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$64.41.32,81 + 0,0215 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$57.6,12 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.33,60 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$84.50.52,95 + e''$
Star's N.P.D.	$65.29.24,90 + f.$
Moon's apparent Right Ascension in arc	$84.33.50,26 + 0,6668 t + 0,6030 \tau + 0,9958 x - 0,0049 y + 2,1459 m$
Moon's apparent N.P.D.	$65.27.49,94 - 0,0351 t + 0,0239 \tau + 0,0039 x + 1,0004 y + 2,7825 m$
Moon's apparent Semidiameter	$15.34,02 + 0,9340 n + 0,0006 t.$

Apparent Distance of Star from Moon's centre:

$$15'.35'',27 + 0'',9051 \times \{ + e - 0,6668 t - 0,6030 \tau - 0,9958 x + 0,0049 y - 2,1459 m \} \\ - 0'',1005 \times \{ - 0,0351 t + 0,0239 \tau + 0,0039 x + 1,0004 y + 2,7825 m \} \\ + 0'',1025 \times f.$$

Final Equation :

$$-1'',25 = 0,9051 e + 0,1025 f - 0,9017 x - 0,0961 y - 0,6006 t - 0,5482 \tau - 2,2219 m - 0,9340 n.$$

Reappearance of B Tauri, Sept. 26, $10^h.40^m.17^s.85 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$345.29.24,45 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$84.29.33,45 + 0,6059 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$64.42.43,70 + 0,0237 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$57.7,73 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.34,02 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$84.50.52,95 + e''$
Star's N.P.D.	$65.29.24,90 + f.$
Moon's apparent Right Ascension in arc	$85.7.48,19 + 0,6331 t + 0,6047 \tau + 0,9981 x - 0,0052 y + 2,2905 m$
Moon's apparent N.P.D.	$65.25.57,74 - 0,0369 t + 0,0263 \tau + 0,0042 x + 1,0039 y + 2,6092 m$
Moon's apparent Semidiameter	$15.37,78 + 0,9378 n + 0,0006 t.$

Apparent distance of Star from Moon's centre :

$$15'.46'',49 + 0'',8878 \times \{ - e + 0,6331 t + 0,6047 \tau + 0,9981 x - 0,0052 y + 2,2905 m \} \\ - 0'',2179 \times \{ - 0,0369 t + 0,0263 \tau + 0,0042 x + 1,0039 y + 2,6092 m \} \\ + 0'',2199 \times f.$$

Final Equation :

$$-8'',71 = -0,8878 e + 0,2199 f + 0,8852 x - 0,2234 y + 0,5695 t + 0,5311 \tau + 1,4650 m - 0,9378 n.$$

Disappearance of κ^2 Piscium, Nov. 12, $9^h.24^m.47^s.98 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$12.53.21.15 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$349.52.12.60 + 0.4469 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$89.13.17.07 - 0.2091 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$54.10.87 \times (1 + 0.001 \times m)$
Moon's Geocentric Semidiameter	$14.45.86 \times (1 + 0.001 \times n)$
Star's Right Ascension in arc	$349.48.16.95 + e''$
Star's N.P.D.	$89.44.5.40 + f.$
Moon's apparent Right Ascension in arc	$349.39.5.03 + 0.3160t + 0.4509\tau + 1.0090x + 0.0001y - 0.7946m$
Moon's apparent N.P.D.	$89.55.52.16 - 0.2109t - 0.2110\tau + 0.0000x + 1.0090y + 2.5782m$
Moon's apparent Semidiameter.....	$14.53.90 + 0.8939n - 0.0002t.$

Apparent Distance of Star from Moon's centre :

$$14'.56''.73 + 0''.6155 \times \{ + e - 0.3160t - 0.4509\tau - 1.0090x - 0.0001y + 0.7946m \} \\ + 0''.7881 \times \{ - 0.2109t - 0.2110\tau + 0.0000x + 1.0090y + 2.5782m \} \\ - 0''.7881 \times f.$$

Final Equation :

$$- 2''.83 = + 0.6155e - 0.7881f - 0.6210x + 0.7951y - 0.3605t - 0.4438\tau + 2.5210m - 0.8939n.$$

Disappearance of κ^1 Piscium, Nov. 12, $9^h.50^m.25^s.39 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$19.18.45.30 + 15.0411 \times t$
Moon's Geocentric Right Ascension in arc	$350.3.39.75 + 0.4469 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$89.7.55.64 - 0.2091 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$54.10.95 \times (1 + 0.001 \times m)$
Moon's Geocentric Semidiameter	$14.45.88 \times (1 + 0.001 \times n)$
Star's Right Ascension in arc.....	$349.43.33.90 + e''$
Star's N.P.D.	$89.36.0.90 + f.$
Moon's apparent Right Ascension in arc	$349.47.16.01 + 0.3230t + 0.4507\tau + 1.0085x + 0.0001y - 0.9921m$
Moon's apparent N.P.D.	$89.50.28.16 - 0.2107t - 0.2109\tau + 0.0000x + 1.0085y + 2.5744m$
Moon's apparent Semidiameter.....	$14.53.51 + 0.8935n - 0.0003t.$

Apparent Distance of Star from Moon's centre :

$$14'.55''.25 + 0''.2481 \times \{ - e + 0.3230t + 0.4507\tau + 1.0085x + 0.0001y - 0.9921m \} \\ + 0''.9687 \times \{ - 0.2107t - 0.2109\tau + 0.0000x + 1.0085y + 2.5744m \} \\ - 0''.9687 \times f.$$

Final Equation :

$$- 1''.74 = - 0.2481e - 0.9687f + 0.2502x + 0.9770y - 0.1237t - 0.0925\tau + 2.2477m - 0.8935n.$$

Reappearance of κ^1 Piscium, Nov. 12, $10^h.14^m.40^s.91 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$25.23.37,95 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$350.14.30,30 + 0,4469 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$89.2.51,32 - 0,2092 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$54.11,03 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$14.45,91 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$349.43.33,90 + e''$
Star's N.P.D.	$89.36.0,90 + f.$
Moon's apparent Right Ascension in arc	$349.55.11,77 + 0,3311t + 0,4505\tau + 1,0079x - 0,0001y - 1,1677m$
Moon's apparent N.P.D.	$89.45.21,78 - 0,2105t - 0,2109\tau + 0,0000x + 1,0081y + 2,5710m$
Moon's apparent Semidiameter.....	$14.53,08 + 0,8931n - 0,0004t.$

Apparent Distance of Star from Moon's centre:

$$14'.55'',32 + 0'',7795 \times \{ -e + 0,3311t + 0,4505\tau + 1,0079x - 0,0001y - 1,1677m \} \\ + 0'',6265 \times \{ -0,2105t - 0,2109\tau + 0,0000x + 0,1181y + 2,5710m \} \\ - 0'',6265 \times f.$$

Final Equation:

$$-2'',24 = -0,7795e - 0,6265f + 0,7857x + 0,6308y + 0,1266t + 0,2190\tau + 0,7005m - 0,8931n.$$

Disappearance of 47 Arietis, Dec. 14, $4^h.52^m.34^s.39 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$336.11.13,80 + 15,0411 \times t$
Moon's Geocentric Right Ascension in arc	$41.27.40,95 + 0,5426 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$69.23.15,51 - 0,1314 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$55.45,44 \times (1 + 0,001 m)$
Moon's Geocentric Semidiameter	$15.11,59 \times (1 + 0,001 n)$
Star's Right Ascension in arc	$42.16.48,15 + e''$
Star's N.P.D.	$69.57.36,50 + f.$
Moon's apparent Right Ascension in arc	$42.1.3,08 + 0,4796t + 0,5455\tau + 1,0044x - 0,0037y + 2,0110m$
Moon's apparent N.P.D.	$69.59.37,53 - 0,1779t - 0,1308\tau + 0,0031x + 1,0083y + 2,2034m$
Moon's apparent Semidiameter.....	$15.19,21 + 0,9192n + 0,0006t.$

Apparent Distance of Star from Moon's centre:

$$14'.56'',16 + 0'',9311 \times \{ +e - 0,4796t - 0,5455\tau - 1,0044x + 0,0037y - 2,0110m \} \\ + 0'',1359 \times \{ -0,1779t - 0,1308\tau + 0,0031x + 1,0083y + 2,2034m \} \\ - 0'',1343 \times f.$$

Final Equation:

$$+23'',05 = +0,9311e - 0,1343f - 0,9348x + 0,1405y - 0,4713t - 0,5257\tau - 1,5730m - 0,9192n.$$

Reappearance of ζ Cancri, Dec. 19, $18^h.30^m.1^s.76 + t^s + \tau^s$ Greenwich Mean Solar Time.

Right Ascension of Zenith in arc	$186^\circ.2'.20''.40 + 15''.0411 \times t$
Moon's Geocentric Right Ascension in arc	$121^\circ.36'.11''.25 + 0''.5911 \times (t + \tau) + x''$
Moon's Geocentric N.P.D.	$71^\circ.24'.29''.40 + 0''.1719 \times (t + \tau) + y$
Moon's Horizontal Equatoreal Parallax	$58'.52''.82 \times (1 + 0''.001 m)$
Moon's Geocentric Semidiameter	$16'.2''.67 \times (1 + 0''.001 n)$
Star's Right Ascension in arc	$120^\circ.48'.31''.20 + e''$
Star's N.P.D.	$71^\circ.53'.2''.30 + f.$

Moon's apparent Right Ascension in arc	$121^\circ.1'.36''.97 + 0''.5237 t + 0''.5945 \tau + 1''.0047 x + 0''.0034 y - 2''.0481 m$
Moon's apparent N.P.D.....	$72^\circ.3'.48''.16 + 0''.2161 t + 0''.1716 \tau - 0''.0030 x + 1''.0084 y + 2''.3821 m$
Moon's apparent Semidiameter.....	$16'.10''.91 + 0''.9709 n - 0''.0006 t.$

Apparent Distance of Star from Moon's centre :

$$\begin{aligned}
 &16'.27''.64 + 0''.7195 \times \{-e + 0''.5237 t + 0''.5945 \tau + 1''.0047 x + 0''.0034 y - 2''.0481 m\} \\
 &\quad + 0''.6543 \times \{+0''.2161 t + 0''.1716 \tau - 0''.0030 x + 1''.0084 y + 2''.3821 m\} \\
 &\quad - 0''.6535 \times f.
 \end{aligned}$$

Final Equation :

$$-16''.73 = -0.7195 e - 0.6535 f + 0.7209 x + 0.6622 y + 0.5188 t + 0.5400 \tau + 0.0591 m - 0.9709 n.$$

HOURLY METEOROLOGICAL OBSERVATIONS MADE AT THE CAMBRIDGE OBSERVATORY
NEAR THE TIME OF THE VERNAL EQUINOX, 1842.

Day and Hour.	Barom.	Att. Ther.	Exter. Ther.	Direction of Wind.	Strength of Wind 0-6.	Class of Clouds.	Clouds 0-10.	Remarks.
<i>h.</i>	Inches.	o	o					
Mar. 20. 22	29,948	41,3	34,5	N.E. by N.	2,3	Nimbi	9	Squally, rain and sleet falling; blue sky 20° above E. horizon, Temperature has fallen 5° in the last hour.
23	,962	42,0	41,7	N.	2	Nimbi and Cumuli	9	Squally; stormy clouds especially in W. horizon.
Mar. 21. 0	,990	43,0	41,7	N.N.E.	2,3	.....	10	... .. moving rapidly.
1	30,020	43,0	41,5	N.E.	2	.....	10	Squall coming up from N.E.; cumuli about horizon.
2	,936	43,0	40,3	N.E. by N.	2,3	.....	9	Squally; a break in N.E.; raining heavily to S.W. and S.
3	,960	43,5	43,1	N.	2	.....	6	Much finer; sunshine; wild clouds in E.
4	,094	44,0	43,7	N.	2,3	.....	7	... .. , portion of a rainbow.
5	,106	43,7	43,1	N.N.E.	2	.....	7	Fine: rapid clouds.
6	,146	43,2	40,6	N. by E.	2	.....	7	Clouds becoming denser; sunset clouded.
7	,164	42,7	40,1	N.	2	Nimbi	8	Very generally cloudy; some scud.
8	,190	42,4	38,5	N.	1 2	.....	10	... .. Moon just visible.
9	,208	42,4	37,8	N. by E.	1,2	.....	9	Clouds broken and Moon visible; fine.
10	,214	42,0	37,6	N. by E.	1,2	.....	10	Perfectly cloudy.
11	,234	41,6	37,1	N. by E.	1,2	.....	10	Quite cloudy: Moon just seen through clouds.
12	,240	41,7	37,0	N. by E.	2	.....	10	Perfectly cloudy: wind steady: raining gently.
13	,230	41,5	36,8	N.	1	.....	9 $\frac{1}{2}$	A few patches of sky; wind gentle and variable.
14	,224	41,2	35,3	N.	1	Stratus and Nimbi	1 $\frac{1}{2}$	Clouds dispersed except a few Nimbi in the S.W., and stratus in the horizon. Sky covered with thin haze through which the Moon and bright stars are visible.
15	,218	40,6	35,0	N.	1	Nimbi	10	Completely clouded: wind gusty.
16	,210	40,6	34,6	N.	1,2	.....	10	... .. , wind fitful.
17	,206	40,4	34,5	N.	1	.....	10	... ..
18	,200	40,5	35,0	N. by W.	1	.....	10	... ..
19	,192	40,5	34,6	N. by W.	1	.....	10	... .. , wind steadier: considerable moisture.
20	,182	40,0	35,5	N.	1	Stratus and Nimbi	10	Clouds lighter, and beginning to break; wind steady.
21	,174	40,4	37,1	N.	1	.....	9	Fine, clouds much broken in Zenith and W. horizon.
22	,154	41,0	39,2	N. by E.	1,2	Cumuli & Cumulo-Stratus	8	... .. ; S.W. sky pretty clear: cumuli all round horizon.
23	,140	41,7	40,5	N. by W.	1	.....	7	Fine; wind cold and pretty steady.
Mar. 22. 0	,124	42,4	41,3	N. by W.	1	Cumuli	9	... ; clouds heavier: some light cirri in the breaks.
1	,104	42,8	42,2	N.	1	.....	9	... ..
2	,078	43,0	42,5	N. by W.	1	Nimbi and Cumuli	10	... ; no blue sky nor cirri.
3	,060	43,0	43,5	N.N.W.	1	.....	9	... ; clouds here and there broken.
4	,040	43,4	43,4	N.N.W.	1	Cirri & Cirro-Cumuli	8	... ; blue sky and cirri visible.
5	,030	43,4	42,7	N.W.	1	Nimbi and Cumuli	7	Finer: more blue sky.
6	,022	42,6	40,3	N.W.	0,1	Stratus	3	Fine, cloudy all round horizon to the height of 15°, otherwise clear.

HOURLY METEOROLOGICAL OBSERVATIONS MADE AT THE CAMBRIDGE OBSERVATORY
AT THE TIME OF THE AUTUMNAL EQUINOX, 1842.

Day and Hour.	Barom.	Att. Ther.	Exter. Ther.	Direction of Wind.	Strength of Wind 0-6.	Class of Clouds.	Clouds 0-10.	Remarks.
<i>h.</i>	Inches.	o	o					
Sept. 20. 20	29,548	53,9	50,5	S. S. E.	0,1	Stratus, Nimbi and Cumuli	10	Much haze in N.E.; has been raining a little: a slight break in the clouds towards S.W.
21	,552	53,2	51,9	S. S. E.	0,1	.....	9	Raining very gently; breaks in the clouds in all directions. Beautiful cumuli along S.E. horizon.
22	,554	53,4	54,9	S. S. E.	0,1	Cumuli	7	Scattered cumuli round horizon and about the Sun.
23	,550	55,1	54,1	S. S. E.	0,1	.....	7	... ; clouds darker.
Sept. 21. 0	,556	56,0	58,9	S.	0,1	Cumuli and Nimbi	9	Clouds much darker; almost stormy in S.W. Wind fitful.
1	,562	56,7	58,0	S. W. by W.	1	.....	9	Raining lightly; shower just gone over: raining heavily due S.
2	,562	56,7	58,7	S. W.	0,1	.....	9	... in N.W. and N. ; many showers about, especially
3	,552	56,8	56,2	W. S. W.	0,1	.....	7	Fine; clear sky in some places: dark clouds in W. and S. horizon.
4	,548	56,3	55,8	W.	0,1	Cumuli, Nimbi and Stratus	2	Very fine; cumuli skirting horizon from N.W. to E. and S.E. Nimbi and stratus towards W. and S.W.
5	,546	56,7	55,0	S. W.	0,1	.....	2	Very fine; cumulo-stratus in N.E. horizon. Atmosphere clear.
6	,550	56,0	53,3	W. S. W.	0,1	.....	4	Fine; S. and S.E. sky clouded; cumulo-stratus in N.E. horizon.
7	,558	56,0	51,8	W. S. W.	0,1	Nimbi	4	Fine and clear, except in N.E. sky: cirro-cumuli in Zenith.
8	,556	55,2	49,0	None.	0	.....	2	Clear sky, except in N.E.; air clear.
9	,550	53,3	48,2	W.	0,1	.....	1	... a bank 15° high in E. horizon.
10	,548	52,6	46,0	S. W.	0,1	Cumuli	5	Scattered cumuli about the Zenith, and denser clouds in W. horizon.
11	,550	51,6	45,3	N. N. W.	0,1	.....	0	Wind so gentle, it is difficult to tell its direction. Quite clear, except a few patches of very thin cloud.
12	,542	50,8	45,6	N. W.	0,2	Nimbi	6	Very thin fleecy clouds: clear in N.W. and S. horizons.
13	,534	50,2	46,1	N. W.	0,4	.....	7	Fleecy clouds remain. Rather more wind. Large patches of clear sky towards N.N.W. and S. near the horizon.
14	,530	49,7	46,3	N. W.	0,5	.....	8	Fleecy clouds as before; clear sky towards S.E. and N.E.
15	,512	49,5	44,3	N. N. W.	0,2	Nimbi	1	Quite clear, except thin scattered clouds in the S.W. quarter.
16	,504	50,0	43,2	N. W.	1	.....	0	Sky clear of clouds, but somewhat misty from very light scud.
17	,504	49,7	42,0	N. W.	0,1	Nimbi	1	E. horizon cloudy to the height of 12°. Dew rising thickly.
18	,508	49,2	43,3	W.	0,1	Cirro-Cumuli	2	A cirro-cumulus streak of cloud stretches from E.S.E. to N.W., height 30°; cirro-cumulus above.
19	,512	49,0	44,5	W.	1	Nimbi	6	Clouds rising rapidly from W. and N.W.; E. sky still fine.
20	,520	49,4	47,2	W. N. W.	1,2	.....	10	Quite cloudy. Heavy rain clouds to S. and S.E.
21	,524	50,5	50,0	N. W.	1,2	Nimbi and Stratus	9	Fine, but cloudy; stratus in N.W. horizon.
22	,524	52,5	52,7	N. W. by N.	1	Nimbi	9	... ; horizon misty.
23	,524	53,6	55,6	N. N. W.	1	.....	9	... ; broken nimbi.
Sept. 22. 0	,528	55,0	56,6	N. W.	1,2	Nimbi and Cumuli	10	... ; cumuli to the South.
1	,524	55,4	56,7	N. N. W.	1,2	.....	10	... ; clouds darker.
2	,520	55,9	55,9	N. W.	1	.....	9	... ; clouds lighter.
3	,518	56,1	55,9	N. N. W.	1	.....	8	... ; zenith clear.
4	,516	56,3	56,1	N. N. W.	1	.....	10	... ; quite cloudy: rain clouds coming up from N.W. and N.
5	,536	55,0	49,9	N. N. W.	1	.....	10	A heavy shower has fallen; raining still. Cumuli and a small break in N. horizon.
6	,532	52,2	50,1	W. N. W.	0,1	10	Cloudy, but broken to N.: light rain during part of last hour.

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